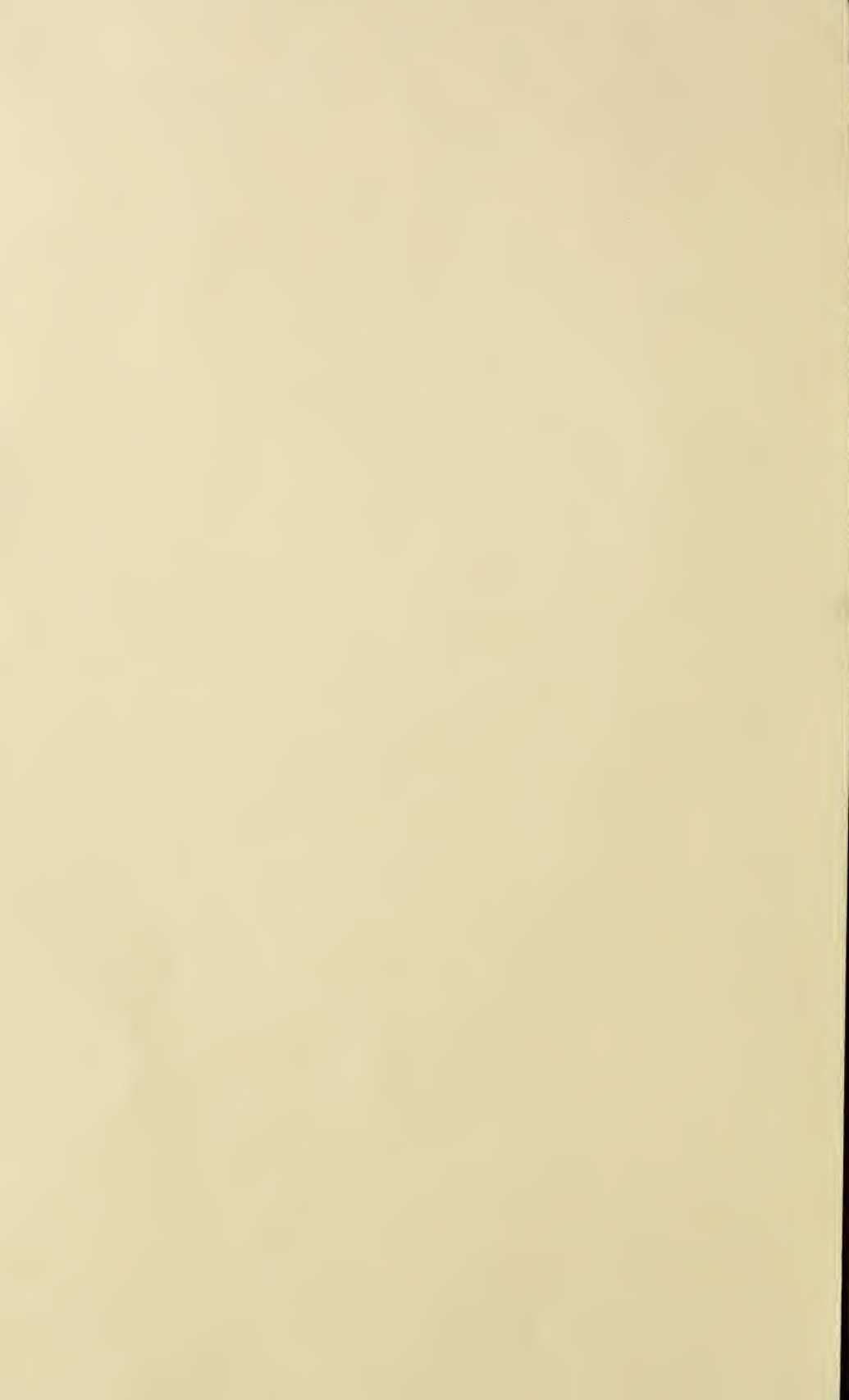


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# THE MARYLAND FARMER:

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## HOMESTEAD PAPERS, No. 5.

### ORNAMENTAL GROUNDS--THE ENTRANCE ROAD--LAWNS, SHRUBS, &c.

In the previous number of this series we discussed the subject of color. At the point now reached when the building is ready for its first coat of paint, it is full time for the owner to turn his attention to the surroundings. The unused lumber and all the waste that encumber the adjacent ground, can now be cleaned away and the garden, flower beds and walks laid out, without danger of being marred by the feet of passing workmen or the piling of accumulating rubbish upon them. The entrance and permanent approach should of course have been determined upon, and at least partially made before this.—Any alterations they may require, which may be deemed necessary to complete them as they should remain, ought now to be carried out. Except where the dwelling stands very close to the highway, the approach to it should be on a curved line, so far as the nature of the ground will admit. Making due allowance for the position of the house in its connection with the main road, the fewer direct interior lines it has within what may be styled the ornamental grounds, the more graceful the general appearance of the frontage will be. An avenue bordered by stately trees, or leading through an extensive domain, may bear and carry off very well the stiffness inseparable from straightness of direction. But in the more modest farm or country place the grace of it must be sought in curved lines, and its beauty in shrubbery, artistically grouped, and of a kind adapted to the size of the place and to its situation. Furthermore, the road should be so constructed that from it the buildings shall appear in their most favorable aspect, so as to impress the mind pleasantly from the first view. Nevertheless, it is by no means necessary, or even desirable, that the house should be in sight from all parts of the road. An occasional glimpse of it through leading vistas of trees, or its sudden appearance as it opens upon the approach from a curve which has been clustered with evergreens and flowering shrubs, is far more impressive.

The entrance gate, wherever it is practicable,

should be as nearly as possible at right angles with the main road. It should also be placed some distance back from the line of fence, which runs parallel to the road so as to allow of being curved inwards—thus affording a generous sweep to all vehicles entering through it, or emerging from it.—From the entrance, the road should also, if possible, ascend towards the house, and should be graduated in width, in accordance with the extent of the grounds and the distance at which the house has been set back from the highway. If that distance is considerable and the house an imposing structure, the width of the approach road should be at least twelve feet. If, on the contrary, the grounds are small and the house or cottage of a less pretentious character, the approach way should not be greater than eight or ten feet in width. If the lay of the land is such that there must be a descent, there should be an ascent, however slight, just before the dwelling is reached. In ornamenting the grounds, on both sides of the approach to the house, the trees or shrubs should be planted in groups, and not in single file. These groups should, however, be connected as it were with each other by smaller ones, irregularly dispersed over the ground, and also by solitary trees or shrubs.

The embellishments made immediately around the dwelling may be simple or expensive as the means of the occupant may be limited or ample. There is no absolute requirement of any large outlay, to render the grounds neat and tasteful, and such as the eye will rest upon with pleasure. Good judgment in the first place, and careful attention afterwards, will do more and appear to better advantage upon the limited space allotted to their exercise, than any amount of money where the outlay has been inconsiderately made. Nature will respond to the simplest taste, as well as to the most highly educated and liberal, and her least elaborate and often her commonest forms are often apt to be at the same time her most beautiful. Winding paths studded here and there with flowers and shrubs, a smoothly mown lawn with a few trees well selected, will beautify and refine, at a very small expense, the home life through the home surroundings.

It would be a poor and empty vanity that adorned

the home simply to gratify the eyes of strangers or neighbors. That would be the least value of such an improvement. Its highest value is the effect upon the members of the household itself without reference to anything outside of it. A celebrated Englishman once remarked that he would keep himself cleanly and neat, and even a little dandified if there were no other person than himself in the world.—He would do it for his own sake purely and simply. In the same manner, should the dwelling be always kept neat and trim with the marks of good taste and refinement always present. The effect of a country place so kept and so maintained, cannot but prove of incalculable benefit to the heads of the family and especially to the children as they grow up in constant companionship with it. Of the great evils that beset our people, one of the most serious is the want of a sentiment of local attachment, and nothing is so potent in fostering this admirable quality, than the charms of a tasteful and well conducted home.

### THE FOREIGN BREADSTUFF MARKET.

The promise of a heavy wheat crop at the West and in Virginia and North Carolina, is well calculated to cheer the hearts of farmers, especially as advices from abroad indicate a heavy advance on the price of breadstuffs there, and a call for large supplies from us. Already harvesting has commenced in Southern Virginia and North Carolina, and in the course of a couple of weeks, will begin in Maryland. The crops in Central and Southern France have been decreased by the protracted drouth there to so great an extent that immense orders for grain have already been received at New York, and the French Government, in its anxiety to meet the emergency, has authorized its importation duty free. At the same time it is reported that the crops of Rye which constitute so large a portion of the bread which is eaten in Central and Northern Europe, have partially failed in Germany, in Sweden and in Russia. The home demand therefore upon the wheat crop of these regions will be much greater than usual, and whilst the price will rise correspondingly, the surplus for exportation will be lessened.

In view then of these facts, it would seem advisable that our farmers should push at once their wheat to market, so as to take advantage of the higher prices which now prevail, and which must continue until the foreign demand is satisfied. We have reason to believe, from a careful survey of the whole wheat growing area of the United States, that whilst wheat has suffered to some extent in Maryland and the Northwestern States the crop as an aggregate will be an enormous one, and will leave an unusually large surplus for exportation. If this should turn out to be the case the wheat brought earliest

to market will bring the best prices, for there can be no doubt that at the rates now offering, heavy supplies will be pushed forward. If therefore this rush should cause a glut, prices necessarily will fall rapidly under the pressure to sell, and only the first comers will be benefited. It is true that as yet nothing can be predicated concerning the English wheat crop, for the harvest does not take place there until the first week in August, and however well the wheat may look at present every thing depends upon the weather at the time of cutting. If, as often happens, continuous rains set in, the wheat may be irretrievably injured by sprouting and no predictions in regard to the supply can be made without taking this fact into consideration.

At this time the wheat stands well, and gives hope of a fair average yield in England, but the farmers know by sad experience that all their hopes may be blasted by unseasonable weather at harvest. Should, however, the crop be gathered in good condition, the English demand will be comparatively light, and France will be without any serious competition for grain in our market. In this case the French demand will not be sufficient to keep prices up for any great length of time, taking in view the large surplus we shall have for sale. On the whole, then, we think it will be to the interest of our farmers to sell early, and thus realize a profit which would otherwise be left in uncertainty. Of course, if the English crops—now looking so well—should ultimately turn out a failure, prices would rise much higher than at present they are likely to be; but this is a matter that is merely speculative, and, as a general rule, it is not a wise thing to do to hold back wheat from market when the price is high on the doubtful chance that it may be still higher some months hence. What if it should fall?

**THE CROPS ABROAD.**—The *Mark Lane Express*, the great newspaper authority on the grain market in England, states that continued drought in that country is strong evidence of the failure of the wheat crop and a large increase of prices. In March last wheat was selling for \$9 78 the quarter, and at present brings \$10 88. The merchants in England base their calculations on a deficient crop in 1869 and on probable short supplies this year from the Baltic.—Grain is also being sent to the Continent, and medium quality California white wheat at \$12 48 per quarter, free on board, was recently shipped for Havre. The *Mark Lane Express* says that the transient dream of overloaded granaries and endless supplies in England is fading away.

Careless feed, irregular drink, and rough usage after hard service, cause most of the complaints from which horse-flesh suffers.



## Our Agricultural Calendar.

### Farm Work for July.

July in the Middle States is the month of harvest, and where the season is backward and the corn crop is not sufficiently advanced to be laid by, the work of the month becomes very severe. The present season, in this latitude, has been marked by almost daily rains, and although the crops of grain and grass have been greatly profited thereby, the extirpation of weeds, is a work of great difficulty. There is nothing more trying to the farmer than a multiplicity of duties pressing all the time upon a limited force of field hands. Moreover, in rainy weather the labor of harvesting is very severe. The clover which is cut to day, and should be dry enough to be carried to the mow to-morrow may and sometimes does suffer terribly. Wheat standing in shocks may have to be opened and dried—not once alone, but several times. There is waste and serious consequent loss in these operations, and from the general dryness and fineness of our climate, our people are not prepared to meet, with shelter cloths and other devices, the danger of a wet summer. Thus far the general promise of an excellent harvest is remarkably good, and it is quite possible that dry weather may set in with the commencement of the month, and so relieve many minds, in Maryland, that are now anxious, fearing that they shall not reap the full profit of the labors of the year. The work now to be done is as follows:

#### The Cultivation of Corn.

Fields in corn cannot be kept too clean, and the great secret of large crops of this noble cereal on lands adapted to its growth, and in good condition, is thorough cultivation. The old fashion of ridging and hilling, though still kept up by many, is believed even by quite a number of intelligent farmers, to be injudicious. On lands lying tolerably flat there is no doubt whatever that the evenness of the surface is kept, and the lighter the soil is made to a good depth, the more capable it is of retaining the rain that falls, and of furnishing an adequate supply of moisture to the roots. On hillsides ridging is imperative to catch the rains and allow them, by the skilful manner of forming the ridges, to absorb as much of them as possible, letting the surplus pass off slowly. Where, however on level lands old habits prevail, and hills are formed about the plants, those hills should not be rounding, but should be made flat and slightly hollowed, to catch the rain and convey it to the roots. It is scarcely necessary to continue these hints in regard to the proper method of cultivating corn, but to young beginners and to

those who have gotten into traditional ruts they may prove of service.

#### Harvesting.

The first week of July brings with it, in this latitude, the wheat harvest. But less dependences should be placed upon particular days, than on the condition of the grain. The proper time for cutting wheat is easily ascertained. If it is too ripe there is loss from two causes, first, from the breaking off of the heads, the straw below them being then very brittle, and next from the deterioration of the grain. As soon as the grain is in that condition which under the pressure of the finger and thumb indicates that it has passed from the milky state to that of a stiff dough, the time for cutting has arrived.

#### Harvest Drink.

A very good harvest drink for those who wisely avoid strong liquors may be made as follows:

Ten gallons of cold water, one gallon of molasses, one quart of cider vinegar, a quarter of a pound of ground ginger. These ingredients well mixed together slake the thirst admirably and make quite a refreshing beverage.

#### Millet.

Millet may yet be seeded up to the 10th of the month—a light rich sandy loam or an alluvial is the soil best adapted to its growth. But any soil will grow millet except a stiff clay, provided it is properly cultivated. Sow broadcast.

*Quantity of Seed to the Acre.*—When for hay sow one bushel to the acre, when for grain sow only three pecks to the acre.

*Fertilizers.*—Twenty two-horse cart loads of well rotted stable manure, or 250 lbs. of phosphatic guano.

*Time of Cutting.*—Cut as soon as about one-third of the seed begins to turn yellow. If allowed to get dead ripe, the loss by shattering is very great.

#### Broadcast Corn.

In cases where the hay crop promises to fall short, sow an acre or two of broadcast corn during the first week in the month. Make the ground very rich, plough deep and harrow well.

*Quantity of Seed per Acre.*—Sow from three to four bushels of seed per acre.

#### Buckwheat.

Buckwheat may be put into the ground up to the 10th of this month. The haulm is not very nutritious, especially when compared with millet or broadcast corn; but the value of the grain when ground into meal is too well known to lovers of buckwheat cakes to need any eulogy from us.

*Preparation of the Soil.*—Manure liberally. If fertilizers are used, the preference should be given to super-phosphates, at the rate of 200 pounds to the acre. Spread the super-phosphate broadcast

and plough lightly under. Sow the seed and harrow well. Sow one bushel of seed to the acre.

*Time of Cutting.*—Cut when one half of the grain begins to turn black. If intended for forage only, cut as soon as the plant comes into bloom.

#### Fall Potatoes.

Keep the vines well hoed and cultivated. See that the soil is kept perfectly free of weeds, and as loose and open as possible. Potatoes will not grow well in a close, compact soil. If any further fertilizers are needed to increase the vigor of the growing plants, scatter over the drills a mixture of ten bushels of wood ashes, one bushel of plaster and one bushel of the cheapest sort of salt. This will suffice for an acre.

#### Fall Turnips.

All the preparation for seeding down to turnips should be made by the middle of July. The better practice is to sow during the last week in July, as early sowing gives an opportunity for reseeded which is lost if the sowing is left until the first week in August.

*Preparation of the Soil.*—If the ground is not in sward it should have at least two ploughings.—Sward land should be ploughed earlier, so as to allow time for the roots and grasses to become partially decomposed before seeding. The soil should be first harrowed with the furrows and next across them until the land is in the finest possible condition. In ploughing, if the subsoil is good, send the plough to the beam, and when the harrowing is done either lay the land off in drills two feet and a half apart, and manure in the drills with well rotted manure as for potatoes; or, if the seed be broadcasted, manure before the last harrowing with short manure and work it well in. There is, however, nothing better for producing a good crop than 250 pounds of super-phosphate to the acre, mixed with 10 bushels of wood ashes and one bushel of salt.

*Quantity of Seed per Acre.*—One pound of turnip seed to the acre will be ample when broadcasted.—A smaller quantity will be sufficient when drilled.

#### Sheep.

To prevent the sheep from being afflicted by the worms that infest their heads, provide a trough under cover in the pasture and spread over the bottom of it, three times a week, as much tar as will cover it, and over the tar sprinkle a layer of salt.—In getting at the tar the sheep will smear their nostrils and thus prevent the fly from laying its eggs in the latter.

#### Peach Trees.

During this month examine all peach trees at the crown of the roots for the grub that burrows under the bark and kills the tree if not removed. The presence of gum will indicate that the worm is at

work. Take a penknife or a wire and follow the channel which the grub makes under the bark until it is found and killed. Plaster the wound thus made in the bark with a mixture composed of two parts of soft soap, one part of flour of sulphur and one part of salt. Scatter some wood ashes about the stem and then return the soil.

#### Caterpillars.

Examine the fruit trees for caterpillars, and destroy them.

#### Budding and Inoculating.

The proper season for budding and inoculating plum, cherry, apple and pear trees is during this month. The exact time for doing this work is when the bark parts easily and freely from the wood.

#### Ruta Bagas.

Keep these free of weeds and frequently hoed.

#### Wet Lands.

Drain these so as to get them in good condition for fall ploughing.

#### Fences.

See that these are kept in good repair.

*METHOD OF GROWING PEANUTS.*—Your correspondent inquires in regard to the method of growing peanuts. The process is very simple, and is entirely successful in this latitude.

Plant in hills three feet apart every way at corn-planting time. The peanut grows double, and in planting, should be broken in two pieces; the two pieces being enough for one hill.

Nothing more is needed, save *clean cultivation*. Do this work thoroughly, until the blossoms appear, which must be covered lightly with earth from time to time. It will be readily seen that the abundance of the crop will depend upon the extent and carefulness with which this work of *covering the vines*, after they have come into blossom, is done, as no blossoms produce fruit save those that are covered, as described. Neglecting this is the cause of many of the reported failures in growing peanuts.

In harvesting, if your ground is loose, the vines are cut and are easily lifted and stripped of their nuts, which should be spread upon the barn floor or other place to dry.

A double handful of seed will produce a bushel or more of nuts, than which nothing will please the children more—and “men are children of larger growth”—and make cheer the long winter evenings.—O. L. BARLER, UPPER ALTON, ILL. in the *Country Gentleman*.

The crop of peaches of Kent County, Delaware, in 1869, covering an area of about 384,000 acres, is estimated at nearly 1,000,000 baskets, and that of the whole Delaware Peninsula at over 3,000,000.



## Garden Work for July.

The operations in the garden for this month are :

*Preparation of Cabbage Beds.*—In preparing beds for setting out cabbage plants, see that they are liberally manured and well spaded. The soil cannot be made too rich for cabbage, and upon the depth to which it is dug and its capacity for absorbing and retaining a moderate degree of moisture, the excellence of this common but most useful vegetable will largely depend.

*Setting Out Cabbage Plants.*—Choose a moist, cloudy day, or one on which there is a soft rain, and when either occurs set out the plants in rows three feet apart and thirty inches distant from each other in the rows. During the growing period, whenever drought sets in, water freely every evening after sunset. The best cabbages for winter use are Drum-heads, Flat Dutch and Savoy's—the latter being in some respects the best of all.

*Early Turnips.*—Prepare a bed for early turnips, to be seeded towards the close of the month. For the mode of cultivation, see "Farm Work" in this number.

*Ruta Baga Turnips.*—If these are not already seeded they should be gotten in at once. The preparation of the soil and the mode of cultivation are in all respects similar to what are required for turnips.

*Lettuce.*—Set out plants to mature, and sow more seed for later crops.

*Melons, Canteleupes, Cymblins, Cucumbers, &c.*—See that these are kept well hoed and free of weeds. Water freely after sunset in dry weather.

*Mangoes.*—By the 10th of the month sow a bed of melons for mangoes.

*Cucumbers.*—Towards the close of the month prepare a bed and sow the seed of cucumbers for pickling.

*Bunch Beans.*—Plant a few rows of bunch beans every ten days to follow the maturing crops of this fine vegetable.

*Endives.*—Set out such plants as are already large enough, and sow fresh seed for a late crop.

*Cauliflower and Broccoli.*—Set out cauliflower and broccoli plants for fall and winter use. Wait, as in the case of cabbage plants, for a rainy day, or else plant after the sun sets. When the planting is done water freely, and always do the same in dry weather.

*Celery.*—Plant out celery for fall and winter use.

*Pot and Medicinal Herbs.*—Gather these in dry weather. Dry them under cover. Put them when dry in paper bags, and label them carefully.

*Garden Peas.*—Choose a shady bed, and plant a few rows of peas early in the month for later use.

*Watering.*—In a garden of moderate size provide an oil hogshead, put into it a quantity of rich stable manure to about one-third of the capacity of the hogshead. Fill it up with water—rain water is best of all—and draw from it as required for watering vegetables. The hogshead may be filled with water two or three times before the manure needs to be taken out and replaced.

### DEFENCE OF MOLES.

A. M. Smith, of Centreville, Indiana, has discovered the use of moles, and writes the *Germantown Telegraph* as follows :

"I am surprised that farmers should wage a bitter war of extermination against moles. True they probably do destroy a few bulbs and roots, but then they also do a great deal of good in destroying worms and insects injurious to the farmer and gardener.

"A few years ago, I had a fine piece of meadow land, but the grub-worms came and destroyed every spear of grass on it, by eating the roots until they died. Then came the moles, literally plowing every square rod of ground and piling up unsightly mounds of earth all over it, but I soon found that they were destroying the grub-worms and so let them alone until they had "cleaned out" almost every one, and now you cannot find either a mole or grub-worm in the field, and I have learned that moles were *not* made in vain. If any one finds them in a field or garden they may rest assured that grub-worms will not find it a healthy locality, or one productive of longevity."

THE OTHER SIDE.—Another correspondent, in the same paper, controverts the position of the above, as follows. Are moles useful? If they are we don't know it.

"If I had not studied the subject for the last thirty years, he might have almost persuaded me that they were an important auxiliary in cultivating the soil; my experience is that they do far more harm than good. We keep a trap set most of the season to destroy all that pass that way, numbering hundreds in years past. The grub-worm he speaks of never has harmed us, or in fact any worm. The moles work through the rows of vegetables and corn-hills, the mice follow and eat off the roots and seed. Some few years since they were so numerous they rooted up a lot of grass in the fall so that the winter weather destroyed an important part of the field. He might as well say the rats are not made in vain, because they will destroy mice. If we were to cultivate moles as a benefit to gardening, we should not be able to grow anything worth attending to. I should not like to have him for a neighbor."

Give light, and the darkness will disperse itself.

## NOTES and COMMENTARIES.

BY PATUXENT PLANTER.

## Corn Drill.

It is rather late to mention this implement for the present year, but it might hereafter be overlooked, and I call attention to it now that those who choose may avail themselves of it the coming year. It is the "Southern Corn Planter," somewhat like the common drills, but it distributes with accuracy fertilizers at the same time it drops the corn. It is light and of easy draft for two horses; can be so adjusted as to drop from 2 to 10 grains about every 18 or 24 inches, with from 50 to 300 pounds of fertilizer per acre. It lays off, opens the furrow, drops corn and fertilizer, covers from 2 to 3 inches deep, and rolls, all at one operation. A man and two horses, on nicely prepared land, will thus plant from 7 to 10 acres per day. What a wondrous saving of time and labor! I had the pleasure to witness its successful operation this season on the farm of that skilful farmer, James Iglehart, Esq., of Anne Arundel County, where he was just closing the work of planting one hundred acres; all had been deeply plowed and brought to fine tilth by frequent harrowing and rolling the cloddy parts. It was a fine sight, the long rows, near half a mile long, and as straight as if laid off by the surveyor's compass. One hundred acres, laid off, dropped, fertilized with 150 pounds per acre of different fertilizers, covered and rolled in twelve days by one man and two horses. Can a farmer want more?—It can be adjusted to sow turnip seeds, &c. It is decidedly the best Corn and Turnip Drill I have yet seen.

Mr. I's farm and all his surroundings are worth seeing; everything in the best order, and neatness seems to be the rule, not the exception. He believes in a farmer raising all his own meats and everything else that may be required on the farm, which the farm, and house and garden can be made to yield. It is one of the finest farms, most improved homesteads and hospitable mansions in that section of country, *Davidsonville* neighborhood, where he is rivalled in his possession of fine land, improved and adorned grounds and genuine old-time hospitality by his adjoining friends, Messrs. T. S. Iglehart (his brother) W. Iglehart, S. Dorsett, T. Kent, W. Mackall and others. The whole country around *Davidsonville* is one of the most fertile, beautiful, productive, judiciously and profitably farmed regions to be found within the limits of Maryland.—Owing to these causes and its healthfulness, polished society, the refined taste everywhere displayed, and convenient propinquity to churches, schools, mills, stores, and water navigation, with the luxu-

ries of the bay and its tributaries, these lands are seldom in the market at less than from \$100 to \$150 per acre. Could their enterprise be still further aroused to build a railroad or pike-road from Davidsonville to tap the Baltimore and Potomac Railroad at Mitchellville or Collington, their lands would bring a great price. Their hills and lovely vales would soon be studded with country seats built by wealthy merchants of Baltimore and the public men of Washington, who would soon find it to their interest and happiness to retire to such rural Edens, that for the time they could forget the troubles of office and cares of the exchange.

## A Prince Georges' Farm.

Among the many beautiful farms in this county, is that of J. T. Walker, Esq., in the "Forest." It is rightly named "*Pleasant Prospect*," for the old mansion commands a truly pleasant prospect of varied scenery and fertile lands, with grounds adorned with ornamental trees and shrubbery; rich pastures, green meadows and luxuriant crops. The house is large and built of brick, the gables covered with American and English Ivy, and like all dwellings of the olden times, substantial and strong, its thick walls are as sound and solid as when its founder Isaac Duckett, Esq., first had it erected, over eighty years ago. This farm contains 600 acres, no waste land, but all in grass or cultivation. It has many large barns, tobacco houses and all the necessary out buildings, and all of them in perfect order.—Every house, except the dwelling, and many of the long lines of plank fencing whitewashed, which imparts neatness and beauty, contrasting so agreeably with the green of the grass and trees. Mr. Walker has shown his skill as a farmer by the rapidity with which he has by draining, making war to destruction on briars and weeds, judicious use of fertilizers, deep plowing, careful management of home manures and sensible rotation of crops, brought the land to a high state of fertility which had been much impoverished before he purchased it, although it was naturally fertile and capable of large production, as is the character of all the land known as the Forest of Prince George's. This farm is adjoining the estates of Messrs. Hill, Brooke and Gov. Bowie.—Mr. W. has lately added about 200 acres to this fine plantation. He evidently indulges in the "high pressure system." The force is large and efficient; the working teams consist of a dozen or sixteen large, well fed mules. He would use oxen entirely but finds it difficult in procuring men who understand driving oxen properly or would treat them humanely.

The hogs on this farm are principally *Chester*, and there are some fine specimens of this breed. They are kept in an orchard of about eight acres, where clover is fed to them as often as required, in summer



a supply of water, and in winter steam food is furnished, with grain all the year round. In one corner of the lot, there are covered pens, floored with plank, for sleeping, feeding and breeding. This plan is preferred to allowing these rooting animals to run at large over the fields. From this hog lot and pens, much valuable manure is obtained. He keeps a large flock of sheep and a large herd of cattle. We counted twenty-two calves, the calves are kept over, no veal sold on this farm. The horses are of good blood, mixed with trotting stock. We noticed some fine colts out of trotting mares and by Stonewall Jackson, Gov. Bowie's fine horse. The cattle are common and mixed breeds, on which he is crossing with a beautiful Devon. The farm is well furnished with the best sorts of machinery, among which we noticed the "*Geiser Thresher and Cleaner*," that has the capacity to thresh, clean and bag 600 bushels per day. A new iron cultivator or shovel plow, for working corn and tobacco—one of the most complete and perfect implements for the purpose we have ever seen. Also an ingenious implement of Mr. Walker's own invention, called a "*Cleaning Rake*," about ten feet long, like the horse wire rake; the teeth are wrought iron, nearly an inch square and 18 inches long, has two wheels, and a lever behind to raise the teeth to relieve it from its accumulations. It is drawn easily by two horses. Its purpose is to rake over a rough field before plowing. Briars, small bushes, corn stubs, smart weeds and other large weeds that impede plowing are all cleanly raked by this implement into rows or swaths, and then easily burned or carted off. He thinks a man and two horses, with this rake, can do more effectually the cleaning and preparing a rough field for the plow, in less time than 40 men with hoes, forks and briar-hooks. All the implements seem to have a place, and be in place in good order, ready for use.

The crops were looking well, corn particularly. Mr. Walker has as yet no special system, except that of making everything subservient to the procurement of a good set of grass over the whole farm. He follows one field for wheat, followed with corn, then oats, but if the grass does not do well, the out stubble is plowed and the field seeded to wheat and grass again. Other fields are worked in corn and followed with wheat or oats, with grass seed, 1 peck of clover and 1 gallon of timothy per acre, but if the grass does not take, or be destroyed by the only pest that he has to encounter—*sheep sorrel*, it is again plowed up, fertilized and put in crop with a view of going speedily into grass, and when he succeeds in a good stand of grass, it is suffered to lie in turf three or four years. Everything seems secondary to grass, his object being to bring the farm as soon as possible into thick set heavy grass, that he

may sell hay and graze some in summer, but chiefly to feed stock in winter. By this system, most of the products of the farm would be returned to the land, and the grain be easily sent to market in the form of meat. Much expense for hired labor and hauling and freight would also be saved.

The fences and ditch banks are clean, and but few farms in Maryland present a neater appearance or more skillful management. A great amount of open ditches, and over 150,000 feet of tiles, some 4 inch, laid double, have been already laid, yet the work still steadily progresses in the reclamation of swamps, wet, oozy places and waste lands.

Of Fertilizers, none have been or are used except plaster, salt and bones. The bone dust is a fine article, manufactured in New York, from raw bone; of this from 400 to 500 lbs. per acre is applied to the corn crop and the small grain, where grass seed is sown, is treated with a mixture of one and a half bushels of salt to one and a half bushels of plaster, per acre. Mr. W. is a staunch advocate of the efficiency of salt as a fertilizer, peculiarly adapted to the growth of grass, and no one can doubt it, who views the effects marked to a line, on a lot of grass, which he showed to us. The difference was at least one-third, or more, in favor of the mixture. An experiment more marked, we have never witnessed, in the results. The farm manure is used principally on the land intended for tobacco. This land he selects from those portions of the field which are lightest in soil and poorest, that it may be benefited by the heavy manuring and produce a crop of good quality of tobacco, rather than a heavy crop of dark color, preferring as he does, color to weight. This is, however, a *farm* rather than a plantation, as we find only 25 acres in tobacco, and from 180 to 200 acres in corn, with about same quantity in grain. It was a pleasing sight to see a dozen cultivators running through the corn field and reminded us of the past—the good old times of slavery and princely estates, negroe melodies, and jingle of the bottle and tin cup.

Mr. Walker, assisted by his son, has done much good, in establishing an improved system of agriculture, and showing how easily our partially worn out soils may be renovated, by the application of some science, skill, observation and persevering industry, aided with a little capital.

In this "interviewing" Mr. W. we derived more pleasure, as we were aided by an intelligent farmer from Anne Arundel County, who *then*, and afterwards, as we rode prospecting other fine farms in the neighborhood, worth an average of \$100 per acre, paid high commendation to the soil and owners, the highest being a reluctant admission that if any place in the world could come up to the country from Governor's Bridge to Davidsonville and its vicinity, it was the *Forest of Prince George's*.

### MAKING AND SAVING MANURE.

The wise and provident farmer should be continually accumulating manure. Everything that has the least value as a fertilizer should be carefully collected and preserved for application to the soil; and it is astonishing how much that is generally allowed to "waste its sweetness," not "upon the desert air," but right under the noses of the farmer and his family, about the house, may thus be converted from a disease breeding nuisance into a source of health, pleasure and wealth. The hen-house, the privy, the woodshed, the sink-spout, the ash-heap, the sweepings of the yard, the slops from the chamber should all contribute to the compost heap. Muck should also be drawn from the swamp and piled for seasoning; leaves should be gathered from the forest and from the fence-corners; old plaster, bones, refuse salt, shells, and all kinds of animal and vegetable matters, that cannot be otherwise made use of, should be composted. Do you say these are little things? Small as they are, they often make all the difference between success and failure in farming.

We advocate the use of commercial fertilizers, but first let the farmer make all the manure he can at home. Hints on the subject of making and saving manures, as well as experiments in their use are wanted from farmers all over the country. In the meantime, we give here several suggestive items, gathered from various sources:

#### A HOME-MADE FERTILIZER.

J. L. Campbell, Washington College, Va., communicates to the *Planter and Farmer* the following:

"Just before the beginning of the war, while I was farming on a small scale, I tested a combination of fertilizers, which gave more satisfactory results. The application was made to a corn crop in two consecutive years. During the second year it was also applied to a clover lot, with far greater benefit than resulted from a mixture of plaster and ashes alone, applied on a portion of the same lot and in equal quantity.

"The ingredients were ground bones, (raw bone phosphate,) plaster, ashes and salt, in the following proportions:

Finely ground Bones.....	200lbs.
Ground Plaster.....	100 do.
Leached Ashes.....	350 do.
Common Salt.....	70 do.

Total..... 700 lbs.

"This mixture was applied to two acres, and dropped in the hill with the corn. The whole cost was \$6.50.

"On very light soils, the addition of 100 lbs. of Peruvian guano to the above compost, would doubtless improve it. The quantity would then be sufficient for two acres and a half.

But even with this addition, the cost would fall far below that of many fertilizers now in use, and which contains less variety and a small proportion of real plant food.

#### PREPARATION OF NIGHT SOIL.

The following is a method of preparing this manure, in which its value is fully retained, while the offensive odor is effectually destroyed. We do not know to whom to credit the paragraph:

"To every one hundred pounds of night soil add seven pounds of sulphate of lime (gypsum) in powder; a double decomposition will ensue, and the result will be, instead of sulphuret of lime and carbonate of ammonia, carbonate of lime and sulphate of ammonia, the latter a soluble salt that cannot be volatilized. It may now be mixed with other composts, or dried any way that the farmer likes, and applied to the roots of the vegetables, to be again transformed into bread, butter, cheese, etc."

#### A CHEAP FERTILIZER.

For several years past Mr. L. E. Metcalf, of Franklin, Mass., has used a compost of salt, ashes and plaster on his farm crops with the most satisfactory results. Without being very exact in weighing or measuring the ingredients, he intends to mix one part of salt with two parts of grey rock plaster, and then adds an equal bulk of wood ashes. The mass is then thoroughly mixed, and allowed to stand a few days before using. If applied alone, about 300 lbs. are spread upon the land, whether cultivated or in grass; and, in case the land is planted, a little more is put in the hill. If other manure is to be used upon the same lands the compost is worked into the manure and both used together. On land on which plaster has no perceptible effect when applied alone, this compost proves as beneficial as on land where plaster works favorably in consequence, as he believes, of its combination with the ashes. Mr. M. prefers his home-made compost to any of the commercial manures. He is particular about the kind of plaster, and says the white has little if any agricultural value.

#### SALT AS AN ANTI-RUST MANURE.

"A planter," writes to the *Macon Telegraph*, as follows:

I have used salt for fifteen years or more. I find it essential to all lands like mine, and most of the cotton lands are like mine. Three hundred pounds (six bushels) of salt and two hundred of land plaster to the acre are almost a preventive of rust, which is one of the worst enemies to cotton the planter has to contend with. Salt makes cotton bear longer in the season, and stand drouth better, it increases the quantity and improves the quality of the staple, it acts equally well on corn, oats and other grain, toughens wheat straw, and causes less waste from



the heads of wheat breaking off when cut. I use eight hundred bushels, but many cannot use it on account of the price.

#### A SALT AND LIME MIXTURE.

A very useful and energetic mixture is made by the following simple mixture:

"Take three bushels of unslaked lime, dissolve a bushel of salt in as little water as will dissolve it, and slake the lime with it. If the lime will not take up all the brine at once—which it will if good and fresh burned—turn it over and let it lie a day and add a little more of the brine; and so continue to do till it all is taken up."

This mixture will supply plants with chlorine, lime and soda, all of which are essential; destroy the odor of putrifying animal matters, while it retains the ammonia, and promotes the decomposition of vegetable and animal matters in the soil or compost heap to which it may be applied. The farmer should keep a quantity of this mixture constantly on hand.

Brine which has been used for salting meat or fish, is still more valuable than that newly made, as it contains a portion of blood and other animal matter.

Whenever refuse nitrate of potash—that is common saltpetre—or refuse liquid in which it has been dissolved for pickling meat, can be procured, it should be carefully preserved and mixed into a compost heap.—*Rural Carolinian*.

**ERADICATING THISTLES.**—Hiram Walker, of Oswego County, New York, writing on this subject to the *Country Gentleman*, says:

"I have had some experience in managing this pest of the farm, and the best way to treat them is to summer-fallow *thoroughly*. Plow four times, the first time quite early, and harrow as many times as shall be necessary to thoroughly pulverize the soil; give it a good dressing of rotted manure; stock it down with the first crop with half a bushel of clover and timothy seed per acre, and use it for meadow. By constant plowing and harrowing you cut off the shoots that must meet the sunlight to give life to the roots, and the roots in their efforts to send up new shoots to meet the air become exhausted.—By the loss of their vitality, the few shoots they send up the next season are sickly, and heavy seeding in a measure smothers them. Mowing is far preferable to pasturing to finish the work begun.—When grown amidst luxuriant grass they are tender, and the scythe cuts them at a time when they have the maximum supply of juice, so that there is nothing from the stalk that can go to the root to invigorate that for sending up shoots the next year. I have several plots that I sowed in this way that are as free from them as the virgin soil."

#### WASTE OF ENRICHING MATERIAL.

Mr. H. L. Read, of *Hearth and Home*, read a paper on this subject before the Farmer's Club, of New York. The following are his recommendations:

"I suggest, for the saving of human excrements, as the most easily applied arrangement of which the privies of the country will admit, something on the principle of the earth-closet. Where the vault now is I would place a water-tight box, set on castors, that might run on a three-by-four joist railway, which when full could be drawn out, and from thence removed to a shed, when the material could be worked over preparatory to subsequent use. Three pints of dry earth would be ample for the use of a single person for a day, which, with a little thought and care, could be provided without much trouble or cost. As to the city, I know of no way to save the immense waste until the sewage can be utilized, as it already is in some other countries. I recommend that so far as possible the slops from the kitchen and chambers be each day emptied on the top of a covered mound of earth, to be increased in size as often as the original mass of muck or loam has exhausted its absorbing power. I urge that every new-built barn be provided with an ample cellar, where three feet of earth can be at least annually or semi-annually deposited to hold the urine that falls from the stables above, or that some other way be devised that shall save for our longing lands this rich and appropriate food; and that when cattle are gathered at night, during the summer, they be either stabled over this bulk of loam or dry muck, which, perhaps, is the most readily available mode, or else in a yard generously covered with the same, or similar absorbents and wherefrom, each morning, every particle of solid matter may be gathered into a pile and placed beyond the reach of either sun or rain, and over which, as occasion may require, a liberal supply of plaster, or dried earth, or charcoal-dust may be scattered to hold the ammonia. The same suggestions will apply to the saving of urine in our horse-stables; and as to hog-pens, they should be new covered with fresh earth at least twice each week, and even then much that is valuable will escape. Finally, I urge every farmer to remember that the earth is not something to be ruthlessly plundered, but rather a consignment of capital to be used to the best advantage for one's own temporal comfort, the general good of the State, and the weal of mankind; and that any loss of this capital, the result of wastes needlessly incurred, is an injustice to his posterity, an injury to the State, and an insult to the good Being who has invested him with this stewardship."

Old men are mowed down, but babies are cradles.



### PHILOSOPHY OF DRAINAGE, &c.

It is of prime importance to the farmer to control the supply of water in a soil at every stage of his operations. Too much or too little of it may be injurious to his plants.

Too much water keeps a soil too cold; for as soon as the sun evaporates a portion which has risen to the surface by capillary attraction, more is brought up, and thus a constant evaporation is going on at the surface of the ground, whereby the temperature of the soil is lowered.

"A dry soil," according to Sir John Herschell, "at the Cape of Good Hope attained a temperature of 150 degrees Fahrenheit, when that of the air was only 120 degrees; and Humboldt says that the warmth of the soil between the tropics often rises from 124 to 130 degrees."

Too much water dilutes the food of plants, and the leaves become too full and have, by evaporation, to get rid of it. In consequence of rapid evaporation the temperature of the plant becomes so lowered that it cannot carry on the processes necessary to healthy nutrition and growth.

The physical properties of soil are much improved by the removal of a super-abundance of water.

Clay, when wet and adhesive, is impenetrable by air, but becomes open and friable when dry.

Drainage, by promoting friability of the soil, favors access of air. For as water sinks it sucks in air after it.

Too much water in soils containing much vegetable matter, favors too rapid decomposition, or promotes the production of acids and other chemical changes deleterious to the plants.

Air entering the soil freely, carbonic acid and other wholesome (to plants) compounds are rapidly produced. Underground drainage is not only useful in clayey soils, but gives free vent to water in spouty sandy soils.

These principles should not be lost sight of in operations on the farm, whether underground drainage is adopted or not. "When adopted, the directions of its details must be governed by circumstances and economical considerations."

The philosophy of drainage is the philosophy of subsoil plowing. The right use of the subsoil plow can only be understood by acquaintance with the physical properties of clay.

"Cut stiff clay into the shape of a brick, and then allow it to dry and it will contract and harden; it will form an air dried brick almost impervious.—Cut up while wet, and it will be divided into so many pieces, each of which will harden when dry, or the whole of which will again attach themselves together if exposed to pressure while they are still wet. But tear it asunder when dry, and it will fall

into many pieces, will more or less crumble, and will readily admit the air into its inner parts. So it is with clay subsoil."

Run a subsoil plow into wet clay and for a time you may receive some benefit. Soon, however, the clay adheres and the subsoil is as impermeable as ever. Tear clay to pieces when dry and its physical properties are changed. It will not easily adhere, but continues open and friable and to a greater or less extent permeable.

In the former case the agriculturist will be disappointed. In the latter his labor will be well spent. It is contended by many that subsoiling should never be resorted to until at least a year after the land is drained.

#### DEEP PLOWING,

like subsoiling, lets out water; allows a free access of air and rains. It more or less mixes the subsoil with the soil proper, thereby changing both its chemical and physical peculiarities.

Clay brought up from beneath renders a soil stiff, while sand makes it looser.

Deep plowing brings up substances that have a tendency to sink beyond the point of the ordinary plow, and mingles them in something like a proper proportion with other ingredients of the soil. Thus, in sandy soils it is often necessary to bring towards the surface lime, marl, and clay.

"Deep plowing renders the soil deeper, so that the roots of plants may penetrate further in search of liquid food and moisture."

#### ON RAINS.

Rains are useful in more respects than supplying water to the soil, and through the soil to the plants. Rain causes the air in soils to be renewed. As rain sinks into the soil, it displaces the air already there, and as the water sinks it draws in fresh air after it.

Rain warms the soil. Passing through the air, rain acquires something of its temperature. This temperature is carried down to the various parts of the soil, and not only equalizes but often heightens its temperature. The sun can only heat the soil by its direct rays a few inches below the surface.

Rains carry down to the roots of plants many soluble substances, and wash out many obnoxious ones.—S. H. STOUT, M. D.

THE PEA FOR FODDER.—Prof. Voelcker, of England says: "The pea, like the bean, has been grown almost exclusively for its seed, but probably it may, in many cases, be more profitable to gather it as a fodder plant before the seed arrives at maturity, as stock eat the green plant most greedily. An analysis of the whole plant shows how valuable the dried herbage must be, especially for growing animals, owing to its high percentage of nitrogenized or flesh-forming substances; it is rich in sugar and the supporters of respiration."

## DEEP OR SHALLOW PLOWING.

Sometime ago I noticed in the *Western Rural* a report of a discussion at the New York Farmers' Club, upon the vexed question of deep or shallow plowing. Now, as I am a earnest seeker after truth (which, as Dr. Trimble suggests, is mighty and must prevail), I have been much interested in reading the discussions which have taken place, from time to time, in that sometimes abused but worthy institution; and I have been much benefited and enlightened on many subjects from reports published by that Institute.

The reports however, upon this particular subject of deep or shallow plowing, I must confess, have been rather unsatisfactory. To my mind, taking all the arguments adduced on both sides of the question one grand principle is proved, which underlies the whole theory, viz., that the surface of the soil is the only portion which Nature designed or has prepared to receive and germinate the seed, and furnish proper food for the young plant. Now, I infer from reading those discussions, that those who have experimented in deep plowing have generally turned the cold, barren subsoil on top, placing the fine, pulverized, loamy soil, as well as all the manure and other vegetable matter they plow under, so far under that the young plant receives no benefit from it whatever, or at least not until so late in the season that it is impossible to make a good crop.

Now, I claim that Nature is the same in its government of the vegetable as it is in the animal kingdom. I admit that we may once in a while succeed raising a dwarf of an animal by depriving it of the milk of its mother when young, but nine chances in ten it dies before it is one year old. The same will hold good with the young plant. If you turn the soil (or what I would term the milk of mother earth) so far under that the tender branch roots of the young plant cannot reach it, you deprive it of what Nature designed for its proper nourishment. I claim that the whole drift of argument in favor of shallow plowing sustains me in this position, because it has the surface soil to sustain it; and if the land has been kept up by manure, and proper rotation of crops, the season being neither too wet nor too dry, the young plant has everything requisite to rapid growth.

Here my friends—the advocates of shallow plowing—have it all their own way. But look out for breakers, for at this period the plant passes the most critical point of its existence, especially if the subsoil is of a clayey nature. In this case the sub-soil is reduced to a hard-pan, by the constant pressure of the plowshare and the tread of the horses from year to year at the bottom of the furrow. The packed clay being so near the surface, leaves so little depth of loose soil, that it is insufficient to re-

tain moisture during a dry time, and oftentimes retards the germination of the seed, while in case of an excessive fall of rain, it is insufficient to absorb the surplus water, thus shutting out the air and materially injuring the plant, if not entirely destroying it. Here our friends of deep plowing proclivities rally, and claim that they have made ample provisions for both of those contingencies. I admit they have, but have also entirely ignored the first grand principle of nature's laws. They have taken the milk from the young, and neither converted it into cheese nor butter, nor turned it into the hog-trough; but like the man that received but one talent, they buried it, for fear they would loose it; and judging from my experience in the same direction, when the harvest hands and threshers are done, they will take the crop for what is their own.

A few words in regard to my experimenting and the result the past season, and I am done for the present. I endeavored to devise some easy and cheap principle by which I could break up this hard, lifeless sub-soil, and leave it in its place thoroughly pulverized. I had a plow constructed, the share of which is near the shape of a spear, or an arrow-head, some 14 inches long by about 10 in width—doing its work something after the fashion of a garden mole, except more thoroughly stirring the soil—to follow a common stirring or breaking plow in the same furrow. I ran it to the depth of from three to four inches. It broke the sub-soil up thoroughly, leaving the furrow almost level full. I used it both as an attachment to the ordinary plows in common use, and also with a separate stock, in either of which it worked well. I obtained a depth of from eight to ten inches, according to the condition of the land and will of the operator, always doing as much stirring as possible with the subsoiler, and reversing as little of the surface as possible, with the first plow. By this process I obtained the desired object attained by both deep and shallow plowing—retained the loose, mellow soil, and all the fertilizers on or near the surface. At the same time I procured a deep seed-bed to absorb surplus water, and also to assist in retaining moisture in a dry time. My farm was originally composed of both timber and prairie; the soil is of a tan color, the sub-soil is clay, with portions of gravel in places, and lays in that portion of northern Illinois where the corn crop last season, with but few exceptions, was almost an entire failure on account of almost constant rains the first part of the season.

Now for the test. I took 22 acres of gently rolling land, equally well drained by natural drains or ravines, all of which had been in cultivation from 30 to 35 years, and pretty well worn. I subsoiled 11 acres. This portion had never been seeded to



grass of any kind to my knowledge—at least not for many years. The other 11 acres I plowed the usual way; that is, what would be termed shallow plowing. It was all planted about the same time, cultivated as near as could be alike, with cultivator. No hoeing was done on either piece. I think both pieces of land had previously about the same attention, as regards manure and tillage, except that the part I did not subsoil had the advantage of a good stiff sward of clover and timothy turned under the preceding Spring, after being seeded three years. The result was, that I took from the part plowed the ordinary way and not subsoiled, but ten bushels to the acre on the average; while from the part which was subsoiled, I took thirty-five bushels per acre as an average. I send you this report of my experiments, hoping that I may hear from others who may have experimented on the same principle, or something better.—*Cor. Western Rural.*

#### WHY NOT KILL FISH ?

I was a few days ago at Aix la Chapelle, with some well informed Dutch gentlemen, and we were talking about the fisheries in the North Sea. While speaking of the superiority of the produce of the Dutch fisheries over our own, I remarked, without being able too explain the cause of it, that in three excursions I had made to Holland, I had found the same superiority in fresh fish, from both salt water and fresh water, in taste and solidity, though these fish ought, nevertheless, to be very nearly alike in the two countries, while migrating.

The answered that the advantage I had observed was a real one, and depended on a very simple practice, which we might easily adopt.

It is the custom in Holland to kill the fish as soon as he is drawn from the water, while we let him lie in an agony which produces the effect of a sickness on the animal economy, softens the flesh, and gives to it the principles of dissolution. This answer seemed to me a gleam of light. No one would eat a sheep or a chicken that had died a natural death or been drowned, and precisely for the reason that the Dutch allege in the case of the fish. Why should we be less delicate in regard to creatures that swim, than to those which walk or fly ?

The Dutch kill the fish by making a slight longitudinal incision under the tail, and the operation, which is performed by a very sharp instrument, can be done so quickly that it is practiced even in the largest fisheries, not excepting those for the herring.

At Audermale, on the Rhine, there is a very celebrated salmon fishery. They kill the fish there by thrusting a steel needle into their heads.—*Our Dum Animals.*

It is the chicken-hearted men who get henpecked.

#### Destroying Sorrel.

Among the best methods to rid the soil of sorrel is to plow the land in midsummer. Hence, a crop of buck-wheat sown in July is very effectual. A crop of ruta bagas, sown in the same month and kept clean with the hoe, is perhaps, still a better destroyer of sorrel. Plowing the ground early in the spring or late in the fall, has not much effect in destroying sorrel, because then is the time of its active growth; and if its long stringy roots just growing under the surface of the ground, be cut with the plow and scattered about by the harrow, it will have a tendency to spread rather than to subdue. Lime is reputed an effectual destroyer of sorrel, which is, no doubt, correct; but when the required quantity of lime is applied to the soil to kill sorrel, will it not destroy other vegetation and injure the land for raising subsequent crops? Sorrel will grow luxuriantly through inches of lime, and lime seemingly has little to do in destroying this pest to good farming—if spread on land in the ordinary quantities, which creates a doubt in the minds of many farmers whether chemists may not be mistaken in prescribing lime as a destroyer of this weed. Many have no belief in the actual existence of sour soils, for sorrel will grow in common garden soil in the midst of other plants, which renders the presumption almost positive, that it is not the absence of lime which permits its growth. But these nice points and chemical discussions we farmers should leave for chemists to decide, and depend upon thorough cultivation for the destruction of this pest, the same as we do for other noxious weeds and plants. The best plan we know to kill sorrel, is to stir the ground, harrow out the roots, and expose them on the surface in hot dry weather in midsummer; and if farmers will try this experiment, and put lime on the land when it is needed to raise cereal crops, they will learn that sorrel is like all other weeds and useless plants, and will succumb to superior cultivation.—*Cor Journal of the Farm.*

A GOOD SUPER-PHOSPHATE.—A good super-phosphate is made by converting the insoluble phosphate of lime in burnt bones, phosphatic guano or mineral phosphate into soluble phosphate of lime, by decomposing it with sulphuric acid. It is a good article when it contains from 12 to 15 per cent. of soluble phosphoric acid. If it contains ammonia in addition so much the better. But I believe it is a mistake for manufacturers to make super-phosphate from unburnt bones. They cannot make it cheap enough. The bone-dust is itself worth too much as a manure. They should look for cheaper sources of phosphate of lime.—HARRIS, in *American Agriculturist*.



## Private Talks Among Farmers.

As soon as farmers become familiar with each other and interchange thought on the subject of their farming, this one thing takes place favorably; the best man among them directs the farming of the neighborhood. It is hence that we see in many sections improvements that, in comparison with surrounding land, seem oases. It is not the natural richness of the soil so much that makes this, (as this will soon become exhausted,) as it is the improvement. Where this improvement is carried on successfully, you will find drainage, deep plowing (on the whole,) grazing, the use of clover, top-dressing instead of the old-fashioned turning in of manure, and the rigid saving of manure. You will find early crops, and early harvested, before fully ripe, and the hay crop a grass crop dried, of course, now more expeditiously and successfully since the tedder is such a success.

These are but a few, though the main principles of farming. They are understood more or less by the best man of the neighborhood, and practiced, so that he teaches both by example and oral instruction.

A meeting, a club, the holding of fairs are not of as much benefit as these talks, quiet, confidential, and always to the point. Thus different experiments are tried, and farming is all the while on a tending upward, where the leading men are directing it, where they are. But there must be confidence or the whole game is spoiled. This is not always the case; there is much jealousy; we are too apt to believe in our own way and adhere to it, however that may be; we look with jealous eyes upon our neighbors' good crops, and will not own that we are in error and that he is right; so we envy him and, yes, hate him.

Now this is the case with some, we hope not many. The majority, however, may be benefited. They believe in prosperity, they wish for it, and so they are the right men to work upon; and if your leading man is the right kind of man, obliging, unassuming, the way is open. The thing can be done, is being done, and will be done more. And the sooner we go about it in greater earnest, seek, communicate, the sooner will the profit be realized.—*Utica Weekly Herald.*

**ROADS AND BRIDGES.**—Every tax payer should be made to understand, what was once uttered by DeWitt Clinton, that "every judicious improvement in the establishment of roads and bridges increases the value of land, enhances the price of commodities and augments the public wealth."

Why are farmers like fowls? Because neither will get crops without industry.

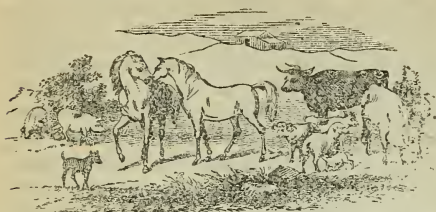
## Destructive Insects of Foreign Origin.

The *American Entomologist* calls attention to the fact that European insects and weeds are naturalized in America with far more facility than ours are naturalized there, and even crowd out the insects indigenous to us. Thus we have a native currant worm very much like that imported twelve years ago from Europe; but it has never done any damage, while already the latter has in some places almost put a stop to the cultivation of the currant. Our onion fly does scarce any hurt; while the imported fly, which is closely allied, does great damage. It is just the same with imported bark louse of the apple-tree and the meal-worm beetle. Among other pests of European origin are the Hessian fly, introduced 90 years ago; wheat midge, 40 years ago, the bee moth, cheese maggot, grain weevil, housefly, cockroach, and carpet and clothes moths; and, among weeds, Canada thistle, mayweed, oxeye daisy, burdock, smart weed, shepherd's purse, buttercups, purslane, and chess. In fact, the weeds that a gardener has to contend against are nearly all European. On the other hand, scarcely an American noxious plant or insect has been successfully introduced into Europe, except that the minute ant which infests houses is found in England, and our common water weed, *Anacharis Canadensis*, is troubling the streams there.

## To Promote the Sprouting of Seeds.

According to the English Repertory of Patent Inventions oxalic acid promotes the sprouting of seeds, so that seeds thirty to forty years old will germinate by its application. The method is to soak the seed for one to two days in a solution of oxalic acid till they commence to sprout, when they are taken out and planted in the ground. Another means was found by the Count von Sternberg, who exhibited in 1834, before the meeting of German *savants* in Stuttgart, perfect grown ears of wheat raised from seeds taken from Egyptian tombs, and therefore at least two thousand five hundred years old. All attempts to make them sprout failed till he placed them in fatty oils before burying them in the earth. They sprouted very slowly, it is true; but finally produced ears perfectly identical with the Talavera wheat. Coffee-beans, in which, as is well known, it is very difficult to cause germination, may be made to sprout in twelve hours, if placed in a tumbler with water to which an equal part of spirits of ammonia has been added, the glass being covered with a piece of wood, and exposed to a moderate heat. In twelve hours the roots are seen to project to a distance of several lines, and even the commencement of leaf-formation may be seen by careful observation.—*The Manufacturer & Builder.*

## Live Stock Register.



### Some Facts about Horses, and particularly of the Percheron Norman Horses.

Besides a taste for good horses, my pursuit in life made it indispensable that I should see and know a great deal of the breeds of horses in the United States, particularly coach and farm horses, and I have been a close observer of breeds and classes, and after thirty-five years active acquaintance with horses, over twenty-five in the mail coach business, I have quit the destruction, and am now interesting myself in breeding horses, that I think most suited to the mixed wants of farmers—and horses to suit our day.

Horses long bred in a mountain region become slower to mature; those raised in the western grain growing States mature rapidly, and consequently are coarse in limbs, hoof, and body, and are more tender than mountain and tidewater Virginia-raised animals. With the exception of the few thoroughbred horses, in lower Virginia, there is no *established* breed of any class to be found in the Southern States, consequently there is no class that produces with certainty their type, but mixed, and ill-shaped, and many are not well adapted to any farm or road purposes.

I am breeding from the thoroughbred horse Granite by Engineer, and he by Revenue, and out of Die Clapperton, by Boston. I have also a three year old, Florist, by imported Australian, and out of Daisey, by Cracker, and he by Boston.

The Morgan stock is nearer the style for "all work," and they are compact, docile, and of a *uniform* cast of form, but in many instances lack the size for the heaviest work needed, and a cross to produce more size is desirable.

The Black Hawk branch of the Morgans is most popular at the North, where it is bred and used to a great extent; and having bred from my horse Black Hawk for ten years, I am entirely satisfied with this stock, except lack of size for our heaviest work. This improvement I hope to attain by crossing with the Percheron Norman. I imported in the spring of 1866, two each, stallions and

mares, from the famous breeding district La Perche, France.

Having seen this breed in 1849, at all work, particularly the mail coach and heavy diligence and farm, I was then convinced they were of all others I had seen, the best adapted to such work anywhere. The select stallions are used to the "Malle Poste" carriages, making the usual average of nine and a half to ten miles per hour, for one, two and three hundred mile routes, with relays at ten to twelve miles. This work is done with perfect regularity. The Diligence with twenty to twenty-two passengers, with heavy and "extra baggage," the vehicles exceedingly heavy, are carried over the same route from six to seven miles per hour with like punctuality as the "Malle Poste." The heavier work of the roads is done by the less fleet stallions, and the mares are used on the farm and breeding at the same time; idle animals being too expensive for breeding, on the continent.

The history of the Norman horse and the power of producing the like gives a guarantee to the breeder that is worth paying for. The size of the stallions, 1540 and 1690 lbs., one with a good gait and action, the other showing fine action and speed. The mares weighed 1250 and 1260 lbs., and equal to the stallions when in similar keep. During their first winter here, they had neither shelter nor grain, having with other mares had the run of a ridge meadow, and access to a rick of hay, and looked well, and better than in October. Though these animals never saw corn till they reached Virginia, they seem as thrifty and as much "at home," as if "to the manor born."

I will add the authority of others on the subject, and give an extract of a letter from Col. G. W. Carr, of Va.

"By many generations of uncrossed breeding the Norman type is as firmly fixed that we may hope they will impress their own qualities of strength, endurance, action and docility upon a cross of our stock."

"In the Italian campaign of 1859, I saw daily hundreds of these horses which were used for the French Artillery, and they exhibited those qualities as well as I can remember, without a single exception."

I have gleaned from a book containing the report of J. H. Klippart, Esq., Secretary of the Ohio State Board of Agriculture, who visited Germany and France in 1855, and furnished a full account of the breeds of horses and much valuable information about breeding, &c. as well as of agriculture generally:

"At the International Fair at Stettin, Prussia, May 1865, there were exhibited 16 heavy carriage horses other than thorough bred, of which number eight were of Percheron or their cross, and of heavy draught 35 against 55 of other breeds. It will be seen from this that the Percheron's blood is esteemed



on the continent for heavy carriage and draft horses. These Percherons originated in France. Those from the departments of Loire-et-Cher and Eure-et-Loire, are held in the highest estimation. Not only is this breed remarkable for the possession of many excellent qualities, but recently, *fashion*, which exerts such an all powerful influence in every thing in France, has invested this breed with a reputation which may be exaggerated, but it has at all events, conferred upon it a great commercial value.

There is no doubt that it is the best strain of horses on the continent for diligences, omnibusses, drays and farm work generally. The color most sought for is the gray or dapple gray. \* \* The head is elegantly formed, withers high without being really massive, the croup notwithstanding it is short and rather low, is well formed.

It is generally believed that there is considerable oriental blood in this breed, because the predominating color, gray, which with age becomes a pure white; the hide is comparatively fine and soft, the hair fine, mane and tail rather silky, their carriage and general contour good. It is a remarkable fact that with horses of Arabic origin, white or gray are common colors, whilst the heavy draft horse is said to be of Flemish origin, and is black.

The "heavy Percheron," on the Orne, Sarthe and Eure, is nothing less, than a fine or well built animal, but a horse renowned for heavy draft."

Mr. Klippart's report is of great value, having access to the best official sources, and he had a good eye for observation. Besides the history of breeds generally, he gives tables of statistics of breeding that this country, cannot furnish, and which would occupy too much space to re-publish in this sheet.

\* \* \* \* \*

Mr. Harris, of Morristown, N. J., in Youatt on the horse, says:

"These horses first came under my observation on a journey through France in the year 1831. I was struck with the immense power displayed by them in drawing the heavy diligences of that country, at a pace which although not as rapid as stage-coach travelling of England, yet such a pace, say from five to nine miles per hour, the lowest rate of which I do not hesitate to say, would in a short time, kill the English horse if placed before the same load."

Speaking of the horse Diligence, he had imported, he says: "He averaged eighty mares per season for the ten seasons he has made in this country, and he is a very sure foal-getter, he must have produced at least four hundred colts; and as I have never yet heard of a colt of his that would not readily bring one hundred dollars, and many of them much higher prices, you can judge of the benefit which has accrued from his services. I have yet to learn that he has produced one worthless colt, nor have I heard of one that is spavined, curbed, ringboned, or has any of those defects which render utterly useless so large a number of the fine-bred colts of the present day. The opinion of good judges here is, that we have never had, in this country at least, so valuable a stock of horses for farming purposes; and further, that no horse that ever stood in this section of the country has produced the same number of colts whose aggregate value has been equal to that of the colts of Diligence; for the reason that, although there may have been individuals among them which would command a much higher price

than any of these of Diligence, yet the number of blemished and indifferent colts has been so great, as quite to turn the scale in his favor.

"I may safely say they are universally docile and kind, at the same time spirited and lively. They break-in without any difficulty. As regards their speed, I do not know of any that can be called fast horses, though many smart ones among ordinary road horses. Diligence, as I have said elsewhere, was chosen for obvious reasons as a full sized specimen of the breed. As for speed in trotting, we cannot doubt its being in the breed, when we look at the instances among the thorough-bred Canadian ponies. Could I have made my selection from the stallions which I rode behind in the diligences, I could have satisfied the most fastidious on this point, but, unfortunately these horses all belonged to the Government, and are never sold until past service. My main object was to produce a valuable family horse. I therefore am decidedly of opinion that we cannot do better, if we wish to produce in any reasonable time a most invaluable race of horses for the farm and the road, than to breed from the full-sized Norman and Percheron horse."

Mr. Youatt in speaking of the French horses says:

"The best French horses are bred in Limousin and Normandy. From the former district come excellent saddle-horses and hunters; and from the latter a stronger species for the road, the cavalry, or carriage. The Norman horses are now much crossed by our hunters, and occasionally by the thorough-bred; and the English roadster and light draft horse has not suffered by a mixture with the Norman. The Normandy carriers travel with a team of four horses, and from fourteen to twenty-two miles in a day, with a load of ninety hundred weight." \* \* \*

The per cent. of conception of Percheron mares has been considered about two-thirds, the loss afterwards of colts before standing up is believed not equal to that, as reported in Germany. Up to a given date I had put mares, in all, eighteen terms, and produced fifteen living and one dead colt. At another time I counted that three mares had been served by Black Hawk, in all, seventeen terms, and they produced fifteen bay and brown bay colts; the mares being a dun, bay and chestnut sorrel; the dun six bright bays, the bay five dark bay colts, the chestnut one bay and three brown bay colts. In 1865, I bred eleven mares to three stallions, and nine colts were dropped. The uncertainty with some tends to discourage their breeding, for the same reason the farmer would cease to plant; very probably but few crops give a paying return, still we must continue to produce crops. To do this we must breed animals to forward this, or we must take the net earnings of the farms to buy of others, probably jockies, and animals that have been sent to market because of their unfitness to be used as the buyer designs to do.

When the farmers of Virginia learn to be more self-reliant, producing, instead of buying their stock of horses, cattle, &c., buying their machinery and every thing they use, as far as possible at home, they will cease to be that far dependent upon strangers from distant markets.

The breeding of colts, say of two-thirds of the mares served, on an average, at an average of twenty dollars the season, the colts alone dropped would



cost thirty dollars; the use of the mare or time lost just before and after foaling, and favored some afterwards, say ten dollars, or the cost of the colt, of forty dollars, when weaned at six months old. At three years old and forward, a colt should pay its way in its use—if it is not needed its rapid improvement will do so.

Between six months old and until used, my colts and mares fare as my stock cattle do, grazing the year round, and stalk fodder and coarse hay from stacks, without shelter or grain after the first winter; during this time colts and calves are sheltered on cold nights and fed on cut oats, and meal if convenient. The production of stock is an imperceptible cost, it counts at a time when money cannot be raised from a failing crop, and brood mares should be kept in excess, that they shall not be forced to the damage of their foal or themselves. Mares worked and driven and half fed, as mules, or oxen, are not likely to breed with the certainty of mares not abused.

About twenty years ago there was an importation of some horses and mares of this breed by gentlemen near Baltimore, and their descendants of various grades are in just esteem there. At the sale of the late Geo. Patterson of Maryland, in March last, a team of five geldings from five to nine years old sold from \$300 to \$420, an average of \$340. Five two year old colts sold for an average of \$167; two three year old fillies sold for \$286 and \$288.

The sales of the get of my horses have been rare, owners not being willing to part with them; but at from one to three year old, they will sell for double the usual stock prices. One two year old colt of *Bienvenu*, sold in Pulaski County for \$300, and \$400 will not buy another. These evidences should satisfy the doubting breeders of the value of this stock.

S. W. FICKLIN,

Belmont Stock Farm, near Charlottesville, Va.

[The two horses and two mares imported by Mr. Ficklin in 1866, passed through Baltimore, and it was our fortune with others to see them on exhibition, and finer specimens were never introduced into this country.]

**CURE FOR BLOODY MURRAIN.**—The *Irish Farmers' Gazette* gives in its answers to correspondents the following:

"The only remedy is to open the bowels thoroughly. Give a pound of Epsom salts and a pound of treacle in gruel or warm water, and repeat same in half doses every six hours until purging commences. Keep the bowels open by small doses of linseed-oil, and the diet should consist of mash, linseed-gruel, and fresh cut young grass."

**A GOOD REMEDY.**—We know of nothing better for cracks in cows' teats, to which they are very much subject when first turned to pasture, than glycerine; one or two applications of which will heal them up. The teats should be well washed with a suds made of castile soap—itsself a cleansing, healing application—and the glycerine put on at night after milking. So says the *Maine Farmer*.

FLAT surfaces are better than round poles for chickens to roost on, as the fowls cover their feet and keep them from freezing in winter

## USEFUL RECIPES.

The following we glean from the *American Stock Journal*.

**SIDE BONES IN HORSE'S FEET.**—Side bones consist in ossification of the elastic lateral cartilages situated immediately above horses' heels and quarters. From work on the hard roads or stones, these cartilages, which in young sound horses are distinctly felt to be yielding and elastic, gradually become converted into bone, forming irregular, lumpy, hard, unyielding swellings, which extend backwards along the upper part of the hoof crust, outside and behind the lower pastern bone. Where the parts are inflamed, hot and tender, local bleeding often affords prompt relief; blood may be taken either by scarifying the skin above the heels, or by opening the vessels at the toe. Cold water cloths kept constantly moist and cool should be diligently applied. After the inflammation has been reduced by perfect rest and cold water, a few dressings of ointment of the biniodide of mercury as recommended for splint or ring-bone will reduce the size of the deposit. Various so-called specifics are vended for the "certain cure" of such exostosis; but as has been already remarked, bony matter once deposited cannot be removed, and the most that can be hoped for is its condensation and hardening so that it shall interfere as little as possible with the movements of the limb. Horses with side-bones require careful shoeing; the shoes should be light, well fitted and easy at the heels; the nail holes as few as possible, and kept well towards the toes; the crust at the heels kept moderately low, and the frog and bars allowed to grow uncut, the hoof kept soft by frequent oiling, and jar reduced by leather pads.

**WIND GALLS.**—A gall is a swelling that appears on each side of the back sinew above the fetlock, and injures the sale of many fine horses. Many people puncture them, which is a wrong thing, as it often produces an incurable lameness. Procure the best kerosene oil possible, and bathe the spot two or three times a day, until you see the gall has diminished. Dip the end of your finger in the oil, and rub it in well. Then put a tight bandage of cloth around the gall. Be careful and not let the oil spread more than is necessary, for if allowed to run down the fetlocks, it will cause a bad sore. If the gall be a bad one, and the oil should cause a sore heal with green ointment.

**DAY CONTRACTED FEET.**—Make a poultice of corn meal and soft soap, bind a quantity while warm all around the hoof, top and bottom. Let this be on over night or longer; it will soften the foot the best of anything I know of. If the heels are contracted, there is a patent shoe, made like any shoe except a small lip or spur turned up on the inside near the heel (each side) and the shoe made weak a little back of the toe cork on each side. The shoe is now nailed on and spread with a pair of tongs a little; do this while the hoof is soft; and in a few days a little more. Don't spread too much at a time. After you get the hoof soft, keep it so by keeping him off the hard floor.

**INDIGESTION IN HORSES.**—Whenever the evil is noticed, the animal must have a piece of rock salt and chalk constantly placed in his rack and a little pipe-clay, magnesia, or other anti-acid, in his water. If worms have been passed, give three drachms of aloes dissolved in two ounces of turpentine and a pint of gruel. Half an ounce each of ginger and gentian, and half a drachm of sulphate of iron, should subsequently be administered twice a day, to impart tone to the digestive organs. Turning the animal out to grass in the spring of the year, when it can be benefited by exercise and fresh air, will be found to be very beneficial.

**COUGH IN HORSES.**—A cough is rather a symptom than a disease. It is often caused by the irritability of the air passages, occasioned by previous disease. A chronic cough in horses is often occasioned, by indiscretion in the treatment of influenza, distemper, and disease of the respiratory apparatus. It is also one of the effects of liver disease, and sometimes of worms. Too much dry fodder, especially chaff, often aggravates a cough. Carrots and other roots and green feed may be advantageously used. Give your horse a warm stall, with bedding a foot deep, with moist cut feed, a little laxative medicine and not much hard work.

**PROTRUSION OF THE RECTUM IN HORSES.**—Protrusion of the rectum, is mostly caused by constipation of the bowels. The bowels should be evacuated with the following drench: Linseed Oil, 12 ounces, Tincture of Aloes, 2 ounces, Powdered Ginger 3 drachms. Bathe the anus and surrounding parts with cold water during the day, and give him an antiseptic injection at night; when the bowels have responded to the medicine, they must be kept soluble by a liberal allowance of bran mash, and green food if it can be had; a liberal allowance of salt will be beneficial.

## NOXIOUS WEEDS.

At a recent meeting of the Central New York Farmers' Club, the "destruction of noxious weeds" was under discussion, from which we glean the following :

Mr. O. B. Gridley, said that he though that the most troublesome weed to the farmer is the white daisy. He had daisies on his farm for twenty-five years, and constantly fought them, by thoroughly summer fallowing, by cutting before they went to seed, and by well enriching the soil. He had met with very tolerable success in keeping them back, and preventing their spreading. If the daisy goes to seed he would plow the land very deep, so as to cover the seed so deeply that it would not sprout. He recommended the seeding of land subject to daisies with orchard grass or early clover, so that the grass crop can be taken off early. He has also found great difficulty with the Canada thistle. Cutting the thistle will not kill it, as a general thing, although he had seen thistles which had nearly matured, killed by a single cutting. He had often changed his meadows so as to bring into them those portions of his farm where the thistles were thickest, for he had found that when he had cut thistles in his meadows, they had become much injured if not destroyed thereby. Summer fallowing, he believes, will invariably kill the Canada thistle. His custom is as soon as the thistles come up, after summer fallowing, to cut them off by thoroughly cultivating the land. He had heard from one of the best farmers of his acquaintance, that the sowing of buck-wheat on land summer fallowed for the thistle, and turning it in after it had got a few inches high, would always destroy the thistle. Quack grass, which he believed was the next worst noxious weed to the daisy and the thistle, can be easily killed by summer fallowing. He had never found any difficulty in getting rid of it in this way. Summer fallowing will not only leave the land in condition to produce a better crop of grain, but will render it entirely clean. He reckoned the additional value of the land by thorough summer fallowing to be fully \$25 per acre. The prairie sunflower is another hateful noxious weed. By some it is thought to be as bad as the daisy. It, however, does not scatter its seed so widely and spread so badly among the grasses as the daisy. No animal will eat it though they will eat the daisy. It is therefore entirely worthless, and should be thoroughly exterminated. Summer fallowing will kill it. His experience in farming had taught him that no farmer can afford to grow weeds.

One member thought quack a valuable grass for pastures and meadows in many places where other grasses do not flourish well.

Mr. Lewis said that sorrel can be easily killed by application of lime. One gentleman said he had seen sorrel grow plentifully on land that produced large corn. Mr. Lewis thought that lime would have killed the sorrel and helped the corn.

Mr. Williams asked how to kill elders. He had a patch that he had been trying to kill by plowing. He had plowed it for five years, but had not succeeded in destroying the elders.

Mr. Lewis said he had killed an elder hedge by plowing. His practice was to plow a furrow and then pull out all the roots that had been thrown out; and continue doing so until the entire hedge has been plowed and the roots thrown out. He had heard that they could be killed by mowing, but did not think such was the case. He knew of farmers who employed buckwheat always to destroy weeds. If their lands gets foul they sow buckwheat, and claim that it cleans the ground of all weeds. He, however, was not favorably disposed towards the crop. He had always found that corn does poorly after it.

Mr. Rouse, said he had succeeded in keeping daisies out of his land when adjoining farms were white with them. His practice was to dig them out, whenever one appeared. His greatest difficulty had been with quack grass. He thought that if a man has land that is too poor to bear anything else, it might be devoted to quack. It should not be allowed on any other land.

## HOME-MADE MANURES.

The *Worton Agricultural Club*, of Kent County, has recently been discussing the question of Home-made Manures, a subject that comes home to every farmer. A correspondent in the *Kent News* gives a very interesting account of the transactions of the Club meeting, from which we copy the following :

"Considerable attention was given to what is known as barn-yard manure, its manufacture, care, and application. It was held that fodder and straw by passing through animals gained no fertilizing qualities, and that if the straw and fodder could be applied to the land directly, better results would be obtained, but where an animal was fed on stronger food, such as grain, blades or hay, the straw used for bedding and litter was much increased in value by absorbing and retaining the valuable and volatile properties of the excrements. But in this connection it was stated that a gentleman of large experience, of unquestionable veracity, and a land owner in our county, had said that as a measure of economy he would prefer to purchase a certain manipulated fertilizer at its market price than draw the average barn-yard manure one mile. If chemistry and science have succeeded in discovering and combining articles that justify this statement, a very important era in farming has been reached, and it is in the power of every farmer to increase the fertility of his land *ad infinitum*, as it seems to be a fact that the supply of these mixed fertilizers is only limited by the demand."



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## SECOND ANNUAL FAIR OF THE MARYLAND STATE AGRICULTURAL AND MECHANICAL ASSOCIATION.

### LIST OF PREMIUMS.

We publish in this issue the list of premiums of the Second Annual Fair of the Maryland State Agricultural and Mechanical Association. We need not say that the list is a long and varied one and that the prizes are carefully discriminated. The gentlemen appointed on the several committees, by whom the awards are to be made, are not only in the highest degree competent to form a correct judgment on the matters submitted to their decision, but are also from their social position and well known integrity of character placed far above any suspicion of favoritism. The Fair which takes place in September next, promises to be the most brilliant that ever has been held in this State; arrangements having been entered into with the Jockey Club, which will attract many thousands to the Fair, in addition to those who are usually in attendance. We may also say in this connection that the grounds have been greatly improved since the last exhibition, and that every facility will be given to exhibitors to display, in the best manner, their choice stock or whatever may be regarded as worthy of public attention, in relation to agriculture and

its mechanical aids and appliances. Moreover the facilities for access to the grounds will be far better than before, and nothing, we are sure, will be left undone by the Executive Committee to give satisfaction alike to visitors and contributors.

### Maryland Agricultural and Mechanical Association--Meeting of Executive Committee.

The Executive Committee of the Maryland Agricultural Association met on Tuesday, June 7th, at their office, No. 69 West Fayette street, the following named gentlemen being present; Wm. Devries, president; John Merryman, Jos. H. Rieman, Geo. S. Brown, E. Whitman, Dr. W. H. De Coursey, E. G. Ulery and B. H. Waring, secretary. The secretary read the report of the committee appointed at a previous meeting to prepare a premium list, rules and regulations for the approaching exhibition, and to fix the time for holding the same; also a communication from the secretary of the Pennsylvania State Agricultural Society, asking a change in the time decided upon for holding the Maryland exhibition, their time having been previously announced as the last week in September. After considerable discussion it was decided that no change should be made, the lateness of the season and uncertainty of the weather being urged as objections. The time for opening will hence remain as fixed, on Tuesday 27th September. Without alteration the premium list, as reported was adopted, and will be found in the present No. of the *Maryland Farmer*. Mr. Merryman moved that the committee adjourn to meet on Wednesday, June 15th, at 4 o'clock by which time a meeting of the Jockey Club will have been held for organization, and a committee appointed by that body to confer with the executive committee in reference to the races to take place at the grounds of the association this fall.

### SALE OF IMPORTED JERSEYS.

We have the pleasure to publish elsewhere in our present issue, a list of Cattle from the Island of Jersey, England; consigned to Messrs. Ricards, Leftwich & Co., Merchants, of No. 83 Exchange Place, Baltimore, who will offer them for sale a reasonable time after their arrival per ship "Alberte," which is expected about middle of present month, having sailed from Liverpool on 4th ulto. Accompanying this importation, are consular papers, veterinary surgeons certificates and other documents, establishing the genuineness and good physical condition of the animals, besides whatever else that is claimed for them.

We invite the attention of our readers and trust the enterprise may meet with deserved success.



## INTERESTING CORRESPONDENCE.

## Pear Tree Blight---Peach Tree Yellows.

To the Editors of the Maryland Farmer :

I have the permission of Mr. Saunders of the Department of Agriculture, to send you the accompanying interesting and instructive letters on the subject of Fruit Culture. They were written simply as private letters, in reply to inquiries from me, and of course were not prepared for the press; but regarding them of public importance, and as coming from high authority in pomological matters, I asked him to allow me to have them published for the benefit of the community at large, to which he kindly assented.

I do not hesitate to say, if I may do so without incurring the imputation of presumption, that after many years of experience in fruit culture and careful observation of results, I am prepared fully to endorse the views so clearly set forth by Mr. Saunders.

Respectfully, your obedient servant,  
GEO. W. HUGHES.

DEPARTMENT OF AGRICULTURE, }

WASHINGTON, D. C., June 2, 1870. }

GEO. W. HUGHES, Esq.

Dear Sir:—I have not had an opportunity, until now, to answer yours of the 21st of last month.

The blight of pear trees is not readily accounted for. All observations prove, however, that luxuriant growing trees, or rather those that make a late fall luxuriant growth, are more liable to blight than are those who mature their growths perfectly before winter. Whether your trees were rendered more liable by the manuring you gave them, is a question worthy of investigation. I think it quite probable.

I have learned to be careful with regard to a very strong growth. I have abjured all summer pruning or pinching in any shape, as I found but little, if any benefit from it, so far as encouraging fruitfulness, and it certainly tends to late secondary growths which do not become thoroughly ripened. Even winter pruning is apt to encourage a heavy growth of young wood, which prevents the formation of fruiting spurs on the branches. I have therefore, in a great measure, abandoned pruning of any kind, at any season, only doing it so far as thinning out the branches. One rule I now strictly follow with all trees that bear fruit, and that is, never to cut back a leading branch either summer or winter—that is, I never cut back or stop a shoot; as already mentioned, I thin out when necessary, and I do that at any convenient season, but prefer winter, because I get a new shoot from the cut part, which takes the place of the one cut out, and enables me to cut out other branches that lose their fruiting spurs on the lower portion of the stem. This is analogous to the renewal mode of grape pruning. Were the trees in an orchard standards, say 18 or 20 feet apart, and dwarfs say 12 to 14 feet apart, I think I would not prune at all. When once the tree was fairly started with a good head, *let it grow*; of course, the fruiting spurs would always be most plentiful near the extremities.

I also have, in a great measure, refrained from cultivating or working among the trees. This, however, I would always regulate according to the wants of the trees. So long as they made moderately good growths I would keep the orchard in grass, but would consider it quite good treatment

either to manure on surface, or break up the ground when trees became stunted, or failed to make a healthy growth.

I have now great faith in washing the trunks of the trees with a mixture of lime and sulphur. I place a peck of lime and two pounds flour of sulphur in a vessel and slake it with water, same as for a fence wash. If the white color is objectionable, it can be colored.

The blight being a fungous growth, and lime and sulphur being certain destruction to "fungi," I am hopeful of success by its use on the main trunk and principal branches of the tree. We can all notice that trees around hotels and taverns that have been whitewashed for years preserve a clean, fine bark, and we know that it cannot injure the tree, as the outside bark is not vital to the plant. I have stopped the spread of the blight on the bark by this mixture, and it may be that we will find it a good general practice.

I am sorry that I did not see you when you called, but I circulate between the garden and the Department grounds, which causes me to miss visitors sometimes.

I do not feel able to advise you what to do particularly without knowing or seeing the trees, even then I doubt whether I could, but I hope to hear from you again. Our trees are swelling a fine crop, but we are nearly washed out with continued rains.

Yours, very truly,

WILLIAM SAUNDERS.

DEPARTMENT OF AGRICULTURE, }

Washington, D. C., June 17th, 1870. }

GEO. W. HUGHES, Esq.

Dear Sir:—I notice your remarks concerning the Peach.

Without pretending to ever having cultivating the Peach to any large extent, I mean in orchards of 50 or 100 acres, I have usually had a few trees among my collections of fruit.

I am clearly of the opinion that the great drawback to the peach is that it very seldom has a chance to fully ripen its wood. I mean that it grows so continuously, and sometimes very luxuriantly, until its foliage is suddenly destroyed by frost. There is no gradual change of color in the foliage during autumn, followed by natural fall of leaves before cold weather, as we see in most other trees, but, on the contrary, the trees maintain their green foliage, and pushing out young leaves, until a severe frost occurs and completely checks growth. This sudden check and its effect upon the vitality of the plant, produce, in my opinion, the disease called "yellows." I have long held this opinion, and have many facts to bear out the supposition.

It is evident that the culture given the peach, at all events, after ripening of the fruit, should not be of a character to encourage wood growth. It might not be advisable to allow weeds to grow, but I doubt whether there are many cases, where anything more than mowing the ground over to destroy weeds, is required after the crop is gathered.

And as to whether plowing should be necessary in early summer or not, I would be guided by the appearance and general health of the trees. While I am not prepared to advocate laying down peach orchards in grass, I would certainly not cultivate among the trees with anything beyond a common hoe harrow, merely to stir the surface and prevent growth of weeds, without disturbing or breaking the surface roots; this, of course presupposes that

the ground has been properly prepared for the trees before planting, which however, is very seldom done.

During the past two weeks our pear trees have had a good many blighted branches, mostly small limbs and extreme shoots. I presume it is partly caused by the constant rains we have had for several weeks past. I cut them off as soon as they appear and apply the sulphur and lime mixture to the cut, and a little distance down the branch. I have not observed any new cases for a day or two, and perhaps we may not see any more of it for the present, if the weather keeps dry.

Yours, very respectfully,  
WILLIAM SAUNDERS.

### DISEASED APPLE TREES.

*Belair, June 2d, 1870.*

*To the Editors of the Maryland Farmer :*

Having often seen questions of interest to farmers answered in your valuable monthly, I thought I would ask for information, through its pages, as to what remedy, if any, would be beneficial to apple trees affected in the following manner: The extreme top branches will first be affected, and then the lateral branches. They seem to die off, for the distance of two or three feet, all over the tree, and then the disease will seem to be stationary for a time, and the other parts of the tree be in a healthy condition. This is the condition, generally, at the end of the season in which the attack begins. The next spring the trees will put out nicely below the line to which the blight has extended the year before, but during this season, they gradually die out. The wood appears black, dry and shrivelled. I dug around some of the trees, but found nothing there which in my judgment, could have caused it. The first tree attacked was a fine young tree, which had been in bearing five or six years, standing in ground which had not been plowed for about that length of time. The next year a number of older trees in ground which had been frequently cultivated died, and now the blight has returned to trees in the orchard where it first started. Having heard several of my friends speak of suffering as I do, I have no doubt you will touch a subject of general interest to the readers of your monthly, if you have time and space to speak of the one to which I have called your attention above, and will have the thanks of at least one of them. INQUIRER.

[We call the attention of horticulturists to the above, and ask an explain of the disease and remedy.]

If you find any of your evergreens to become lighter in color than is natural for them, or, rather if you wish the deepest green attainable give them a thorough dressing of good barnyard manure, extending as far out as the extremity of the branches, and you will accomplish your wish. It has a magical effect.

FOR THE MARYLAND FARMER.

### KEEPING SWEET POTATOES THE WHOLE YEAR ROUND.

#### Method of Packing, Treating, etc.

In the early part of summer, gather leaves from the woods, old leaves that have laid upon the ground during the winter, and spread them in the sun to dry. After they are dried, place them in a dry room for keeping until the time arrives for packing the potatoes.

Have barrels ready to pack them into, cover the bottom of barrel inside with leaves, one inch deep, then lay in the potatoes carefully on top of the leaves, packing them closely together, then put a layer of leaves, enough to cover them, and then a layer of potatoes—and so continue with alternate layers until the barrel is filled.

After they are packed, barrels may be placed in rotation of tiers about the room in which they are to be kept. The barrels may be set on top of each other, (or over each other,) by laying pieces across the top of the barrels, six inches high, and laying boards on top of pieces, to set the barrels on. The space between the barrels will make it convenient for taking out the potatoes as needed, and will give ventilation to each barrel, as the potatoes must be uncovered at the top of the barrel, for the heated air to escape.

They must not be closed at the top, or they will rot. Immediately have a fire made in the room where the potatoes are to be kept, and the stove should set in the middle of the floor of the room, or near it as possible. I know of many sweet potato growers who keep them from October, up to the middle of April, in a chamber over the kitchen, by heating the room with a connecting pipe from the stove into a drum in the chamber, which is a good way, when a room can be had for the purpose, and can be made sufficiently warm thereby.

The room should not be exposed to too much light, have it darkened with curtains at the windows, and it would be preferable not to keep them in a room that has windows on the north and west sides of the room.

The temperature of the room should be from seventy-five to eighty degrees, for at least ten days after being packed, so as to keep them warm, to dry in the usual sweating process, for should the room be cool (though not feel chilly,) they will become damp and wet, and being kept in this chilled, cold, wet state, they will not keep.

During the time of sweating, the room must have air, have a window raised in the day time, the curtain at the window should be rolled up, as it is not so important to keep the room darkened during the time of the usual sweating process, but after the



time of sweating expires, then it is best to keep the room dark, or with not too much light. After ten days expires, (the time allowed for sweating and at the temperature mentioned,) then it becomes important to keep them at uniform temperature, as they are very sensitive to frost. From fifty-five to sixty degrees is about the proper temperature, lower than forty degrees they will not bear without injury.

The time for keeping sweet potatoes in a warm room generally expires about the middle of April, but they can be kept and be good up to the first of October, when the new crop takes the place of the old, by a proper treatment, viz :

About the third week of April remove the barrels of potatoes from the warm room to a cool dry room, on the north side of the house, and place the barrels in the north side of the room. The room *must* be cool in which they are kept, for if kept in a warm room during the warm months, the potatoes will sprout and eventually have *dry white streaks* through them, and in consequence are not good. But when kept in a cool dry room, as I have stated, I have had them to keep good up to the first of October, *which is the whole year round.*

NOTE.—The leaves keeps the potatoes warm and dry, and from shrinking, and with a bright color. With my experience of keeping sweet potatoes, I know of nothing to *preserve* them in such good condition as old leaves thoroughly dry. It is natural with potatoes to be in the dark, for the reason they are grown so in the ground. A few barrels of sweet potatoes packed in leaves may be kept in a good warm kitchen for family use, until the middle of April.

A. C. C.

WHEAT HARVEST—EARLY AND LATTER SEEDING.—We have received a letter, says the *Port Tobacco Times*, of the 17th June, from John T. Colton, Esq., of Allen's Fresh, giving his experience with the wheat crop of the present year, from which we gather the following facts. He says: "I commenced harvesting on Saturday last, the 11th. All my forward wheat is prime, and well made and filled. My latter seeding, I think, is much injured by the wet weather. I commenced seeding on the 14th of September, and all I seeded up to the 25th of that month is first rate wheat—perfectly made and uninjured. I seeded the Broughten white wheat. My impression is, that if the recent rains had not set in, my wheat would have been ready to cut by the 5th of June."

WELCH'S INDIAN AGUE CURE.—We call attention to the advertisement of B. T. Welch, 63 Broadway, Baltimore, offering his popular Indian Ague Cure, which cures the worst forms of Chills and Fever, &c., and which has effected many speedy cures. We have used the medicine successfully and therefore can recommend it to the public.

Send for Circulars, &c.

FOR THE MARYLAND FARMER.

#### COTSWOLD vs. SOUTHDOWN SHEEP.

I think it not out of place to record the death of a faithful old servant, man or beast. Mr. Joel Osburn, of Loudoun Co., Va., had a colt foaled in May, 1831, by Col. Wm. R. Johnson's blooded horse Tariff; after breaking him Mr. Henry Castleman of Clarke, now of Jefferson Co., Va., became his owner, this Spring this venerable horse died, aged 39 years. Mr. C. always kind to his horses, but this fine animal had always to carry over 200 pounds, his careful master fed him on meal the last few years of the horses life; his health and appetite always good, there is no knowing what age he might have obtained, had not a strong young horse cornered and so injured him as to loose his appetite and pine away. Not many horses live to such an age.

While writing, I must regret that Smada, in your November number, considers me "hitting at him." Very far from it; I thought he was, as his first article professed, "a young farmer" seeking information from more experienced sheep raisers, and at your suggestion, I offered my mite as to cotswold and southdown. I own more of the latter; every man has or ought to have his preference, and Smada and myself arrive at different conclusions, and if discussions do not convince, they need not create differences. Smada is right, southdowns are acknowledged "mutton sheep," but so are cotswold, and other breeds, thus distinguished from fine wools, the difference between them. In England a mutton is not appreciated until 4 years old, when the southdown is in his prime and no mutton superior to it. In this country, at that age, they command six or seven dollars. The cotswold at 4 years old is nearly all tallow, and only valued by laborers seeking fat—the cotswolds are better mutton at 1 year old. I have always sold my cotswold wethers, 1 year old *not under \$10 each*, without having fed them one mouthful of grain and only part bred; some of my mutton (part bred cotswold) fed on grain, I have sold for \$10, \$25, \$35 each, and 3 sold to a Philadelphia butcher fed high on grain for \$250 part bred; one weighed net, head and feet off, 235 pounds, the other two (twins,) 196, 198 pounds, then with me, which is more profitable mutton *one year old \$10 or four years old \$6?* Blue grass I believe is conceded to be best grass for fattening. If grass is so short as to cause much travelling to fill himself, it is better suited to southdown than cotswold, the cotswold is too heavy for much of a traveller; short grass and a scarcity of it suits Devon cattle and Southdown sheep better than improved Shorthorned cattle and Cotswold sheep. As to Southdown sheep being "easier, cheaper kept, hardier, stand the winter better" than the cotswold we differ widely. As to "higher

price in spring market," I can only say they would not here, by a long way, if this result is from his experience. I still must fear he has not the right kind of cotswold, and I have a greater interest in the southdowns—there are but few pure bred cotswolds in the United States. Smada is not probably aware that the committee on sheep generally in England recommended a cross of cotswold on all breeds "for early maturity, aptitude to fatten and hardihood of constitution."

J. W. WARE,  
near Berryville, Clarke Co., Va.

### THE CELERY CROP.

We hold to the same opinion now that we have for twenty-five years, that as a rule transplanting of celery is deferred to too late a period. In nine cases out of ten there is not enough allowed to fully develop the crop. Will not the experience of nearly every one affirm this? Another mistake is shown in setting the plants too near the surface of the ground, rendering the banking-up difficult and deficient. We greatly prefer the old way in vogue since the first cultivation of celery in this country; that is to dig trenches full ten inches deep; stir up the subsoil thoroughly; mix with it plenty of short, well-rotted yard-manure; set the plants; water twice a day; cover with boards to protect from the sun six or seven hours a day, say from 9 to 4 o'clock, until the plants are well-established; then apply manure-water daily, in the absence of rain, until filling in and banking-up of the earth begins.

The plants for early use—for the latter part of November and through December—should be set the last week in June; and all the rest by the middle of July.

Many persons cultivate celery in double triple rows. This does well enough where ground is scarce; but where there is plenty of room single rows are decidedly to be preferred, even though the plants are set closer together than usual. We have had celery by the single row system three feet and a half in length by the end of September.—*German-town Telegraph*.

EXTIRPATION OF SORREL, &c.—If farmers would use more grass seed and plaster they would make less complaint about sorrel. Farmers should, on all their winter crops, sow from six to eight quarts of good clover seed early in the spring, before the ground becomes settled, and as early as the 1st of May sow one bushel of plaster to the acre. If land will grow good corn or wheat it will grow clover, and sorrel will not grow in the shade; it requires a warm soil and the sun, and usually grows on warm sandy lands. Good farmers are seldom troubled with sorrel. It is farmers that use clover and plaster sparingly that grow the most sorrel.—*Cor. Country Gentleman*.

### To Exterminate Willow Trees and Prevent Sprouting.

Farmers who have willow trees on their meadow and swamp lands will doubtless acknowledge them to be a great pest. To destroy them, any time in May or early in June cut loose the bark about five or six feet from the ground with a drawing knife or light hatchet. Then strip the bark down to the ground in strips of two or three inches broad, leaving them fast to the tree at or near the surface of the ground. Let the trees remain thus until the latter part of the Summer or early in the Fall when they may be cut down. Some of the trees will die previous to cutting, others will remain green throughout the Summer. But whether dead or alive when cut, you will rarely, if ever, see a sprout from the old stock. I have tried this plan repeatedly and always found it to succeed as well as could be desired. I have also tried the same experiment with the ash, but found that it barked over nicely anew and continued to thrive. As to other trees I know not.—*Cor. Carolina Farmer*.

THE CANADA THISTLE.—The *Canada Farmer* proposes the following mode to kill Canada thistles:

"Let the thistles grow up as thick and as high as they will, until they are just in full flower; then if they are too thick for the horses to walk through, as is often the case, they are mowed, and the land is thoroughly ploughed. The cut thistles, which are almost as good as a green crop, are ploughed in and the ground well cultivated. The thistles have made their growth to the utmost, and the roots are in the weakest and most expended state, and two ploughings with cultivating will then make clean work."

Hon. J. S. Ely, now residing in the city of Norwich, says that a patch on his father's farm was once cleared of these pests by cutting them three times in the same year: first, when in full bloom; next when vigorously started the second time, perhaps a month after; and last, later in the fall, when the remaining juices in the root had started a new and the last stalk. The next spring they did not start at all.

As these thistles are becoming common this side of the Canada border, we suggest that Mr. Ely's plan for their extermination be tried the coming summer.—*Hearth and Home*.

TOBACCO CULTURE.—"The Plantation," an agricultural weekly, published at Atlanta, Ga., publishes in the No. of June 18th, a portion of the Essay of W. W. W. Bowie, on the cultivation of Tobacco, and gives credit to Gov. Bowie as its author. This is a mistake as W. W. W. Bowie and Gov. Oden Bowie are not the same. The editor is right in speaking of this Essay "being regarded as a standard and exhaustive paper on this subject." We published the entire Prize Essay in the "*Maryland Farmer*" some two or three years ago.



## The Poultry House.

### REARING POULTRY.

*Hens.*—Keep a good kind. Let them have the run of the premises. It will surprise you to find how much hunting and running about is saved if nests are placed where the hens most congregate. It is strange how readily the hens accept these nests. Let them have access to wood ashes and lime, or powdered chalk, and, if possible, fresh meat. The little chicks are hardy. After they have been hatched a day, confine the hen in a coop and let the chicks run out and in. This is very decidedly better than letting the hen run about with the chicks. Meal and water mixed to a dough is the feed.

*Ducks.*—Barrels, in well chosen places, put on their side and well filled with hay, form nests that are readily accepted by the ducks. After the duck ceases to drop its eggs and begins to lay in the nest, the eggs should not be disturbed, but she should be watched to see that there is a full clutch of fifteen when she begins to set. When the eggs are hatched, shear the long down off the tail of the duckling, for if a shower thoroughly wets this it will kill the duck. In rearing the young, confine the mother and all the ducklings in a pen six feet by six, out doors, and partly in the shade of trees, and here let them run. There should be in the pen a barrel with hay for nights, and to house them in case of a storm, which should be done at once. In this way you will not lose a duck. Let the feed be the same as with chickens.

*Geese.*—To form a goose nest, three inches of horse manure should be placed on the ground, and plenty of straw formed in a nest upon this. Then place a large box over this with one side slatted up, leaving only room for the goose to go out and in. In this way the nest of the goose is upon the ground. Geese eggs for hatching should be disturbed the least possible. If the weather will permit, let them remain in the nest. When hatched, let the goose and goslings run about together if there are not too many holes and ditches. Keep them from all water at first over one-fourth of an inch in depth, and house in case of a shower. Do not feed much if any; they will live on grass.

*Turkeys.*—They like just such nests as the ducks. They hatch out all right, but the sure way of raising turkeys has never been discovered. It seems best to pen the mother and let the young run out, and in after the manner of hens and chickens. By all means do not feed meal in any form. Feed a mixture of bread, boiled potatoes, sour milk and plenty of pepper; also give them boiled eggs. Shut

them all in, in case of rain. This is the best way yet discovered to raise turkeys.

All young fowls should be particularly protected from becoming wet through by dew or the grass, by rain or in any way. But in raising fowls, as in all things else, a person must be careful and watchful, and governed by common sense or he will make a failure — *Cor. Prairie Farmer.*

**TO KEEP CHICKENS HEALTHY.**—We have published much on this subject, but the following from a correspondent of the *Rural New Yorker*, is opportune: "The way I keep my fowls in health, I clean out the house once a week; put wood ashes under the roosts; have iron basins for them to drink from; whitewash inside of hen-house with hot lime; put a little kerosene oil on the roosts once a month.—The main food is oats and cake or scraps to pick on. I never feed but once a day—at noon, or when I shut them up at four or five in the afternoon. When they run out then give them all they will eat. In my experience there is no easier way to get diseased fowls than to keep them stuffed; it makes them lazy, and they won't work as much as they ought to to keep them in a healthy condition. I never had any gaps in chickens. When fowls begin to droop I give three large pills of common hard yellow soap; it is the best thing to cleanse a fowl I know of. I follow it for three days; give them nothing to eat, and plenty of pure water to drink. In desperate case give a half teaspoonful of tincture of lobelia."

**GASES EVOLVED BY RIPE FRUITS.**—According to Lechartier and Bellamy, picked fruits—such as apples, cherries, and gooseberries—at first absorb oxygen; afterwards they give off carbonic acid, and in larger volume than the previously absorbed oxygen. At first the evolution of gas takes place uniformly, afterwards it moderates, and then ceases for a time, and commences again and gives off more gas than during the first period. An increase of temperature promotes the transformation. Whether light has any influence upon the reaction is not stated. From these observations it will appear that it is unsafe to sleep in apartments where much fruit is stored.

**A CHEAP GRUB KILLER.**—Dissolve a coffee-cup full of salt in hot water, then put into a common sized watering pan, and fill up with cold water. Just give each plant a gentle switch over with this mixture, and they will disappear in a moment, and the salt and water will nourish the plants wonderfully. All greens are fond of salt and water. Some people would be afraid of killing their cauliflowers; but it must be borne in mind that the salt and water will not penetrate the leaves. It runs off to the roots, killing every caterpillar in its way.—*Gardener's Monthly.*

## PEAS AND BEANS.

But few in this region cultivate peas or beans as field crops. In many of the more Northern States, and in the Canadas, they are crops of considerable importance, and our market is supplied chiefly from that direction. In the South, the cow pea, which is properly a bean, is grown to a considerable extent as a crop for green manuring, and for forage. That these two crops are deserving of more attention from farmers in this latitude is, at least, quite probable. We should consider, first, their influence in

## IMPROVING THE SOIL.

The effect of growing grain crops, especially wheat and corn, to the extent commonly practiced, often for a succession of years upon the same soil, is an exhaustion to a serious degree of the nitrogenous plant food of the soil. The best remedy for such exhaustion, or, what is of much greater importance, the best preventive of it, is a rotation or alternation with some of the leguminous crops.—The most essential element in a soil for a grain crop is ammonia, or rather nitrogen, of which ammonia is chiefly composed. The best preparatory crop for wheat is, undoubtedly, clover, especially a crop of clover allowed to go to seed. Next in importance may be named other leguminous plants, among which are peas and beans. These, for the purpose of green manuring, possess an advantage over clover in being more quickly grown, three months being sufficient to produce an abundant green crop for plowing under.

The leguminous plants abstract from the soil a larger amount than most other crops of potash, phosphoric acid, lime, and other mineral matters, and they contain several times more nitrogen than most other crops. At the same time, during the growth of these plants, as has been ascertained by chemical analysis, a large amount of nitrogenous matter accumulates in the soil. Hence their great importance in promoting the fertility of our cultivated lands. It should not be understood that peas and beans can take the place of clover to any considerable extent, for nearly every farmer should sow clover every year, but in determining their value as field crops, their importance in the respect stated should be considered in connection with their desirable qualities.

In the second place, we should consider their

## VALUE FOR FOOD.

Beans are presumed to be richer in nutritious materials than any other article of vegetable food.—They are especially rich in the nitrates, or elements which make muscles, and in the phosphates, which furnish food for brains, nerves and bones. The

muscle-making element in wheat and other grains is gluten, and this being located in the grain next to the outer covering or bran, is largely lost in the manufacture of fine flour. The muscle-making element in beans is casein, as in cheese. Gluten is more easily digested than casein, but the latter is well adapted to strong, healthy persons with good powers of digestion, such as we should find among farmers and laboring men.

A milch cow fed upon bean meal will give very rich milk, and yield a larger quantity of cheese than from any other kind of food. A cow fed upon brewers' grains, slops, and the like, will give thin, watery milk. Hence we may sometimes err in accusing the milkman of watering the milk. It may be due to the material from which the cow has to make it.

Wheat is found, by analysis, to contain about fourteen and a half per cent. of muscle-making elements, and two per cent. of food for brains and bones; while beans contain twenty-four per cent. of muscle-makers, and three and a half per cent. of food for brains and bones. Two pounds of beans will therefore help to do more muscular work than three and a half pounds of wheat. This is the reason why beans are made to constitute so large a part of army rations. Peas contain nearly the same elements in the same proportion as beans, and are easily digested.

In the third place, peas and beans are in another respect

## ECONOMICAL TO FARMERS.

The cereal grains, in order to be readily available for human food, require to be ground. The time consumed in going to mill, and the amount paid to the miller in toll, detract quite considerably from the value of these grains for home consumption. On the other hand, peas and beans constitute nearly sure and abundant crops, which may be readily and directly converted into human food. This in many localities, at least, is quite an important consideration. There are many farmers who have to go five, ten, or even twenty miles to mill, and then, perhaps, wait a day or two for their grist.

## HINTS ABOUT CULTIVATION.

Peas may be sown quite early in the spring, as they will bear considerable frost without injury.—They may be sown broadcast, and ought to be covered two to four inches deep. This may be done with the plow, or better with a suitable cultivator. Oats are frequently sown with peas to prevent them from falling down so badly, as well as to obtain an increased value of product. Oats and peas ground together make an excellent feed for horses or any other live stock.

Peas grow rapidly, and soon cover the ground so well as to keep down weeds to a great extent. If



harvested, they leave the ground in excellent condition for seeding to wheat or grass. They may be plowed under in the green state with great advantage where green manuring is desirable. If mown in the green state they make excellent fodder. If the seed is allowed to ripen, they may be mown or raked, threshed, and used for fattening hogs, or feeding sheep or other stock. A bushel of peas is worth about two bushels of corn for fattening hogs. Some farmers have found, by experiments, that it takes about five pounds of cooked corn (fed dry) to make one pound of pork, and seven and a quarter pounds of raw corn-meal (fed dry), or nine and a half pounds of raw corn-meal made into a slop, and then fed, to make one pound of pork. Three and one-eighth pounds of beans cooked, or three and seven-eighths pounds of peas cooked, will make one pound of pork.

For feeding to hogs, it is rather essential that peas should be cooked or soaked in water. Sheep will eat them very well without any preparation.—When ground into meal, peas or beans are readily eaten by all farm animals.

Beans may be sown broadcast like peas, and in this way have yielded large crops, sixty bushels to the acre being reported. For green manuring, the bean is a very valuable crop, in this respect better than peas, if not quite equal to clover. One of the surest and most prolific varieties for this climate is the American Newington Wonder.—*Journal of Agriculture*.

**DRY EARTH AS A DEODORIZER.**—In view of a recent item on poudrette, a correspondent from St. Joseph, Michigan, writes the *Hearth and Home* to urge the importance of dry earth as a deodorizer. He says:

"This subject is of such vast importance to the human family, either as a matter of comfort or health, and to the agricultural community, of economy, that every means should be used to spread information upon the subject. For be it known, that simply by the use of dry earth as obtained from the roadside or garden, in dry weather, or coal-ashes from your stove, every person can have a privy anywhere within the walls of the house, from cellar to attic, with no more annoyance than the dry earth alone will produce."

[The Earth Closet, advertised in the Maryland Farmer, and illustrated in the last number, is an invention well adapted to carry out the views of this correspondent, and utilize the refuse alluded to.]

"There was a frog who lived in a spring,  
He caught such a cold that he could not sing."

Poor unfortunate, Batrachian! In what a sad plight he must have been. And yet his misfortune was one that often befalls singers. Many a once tuneful voice among those who belong to the "genus homo" is utterly spoiled by "cold in the head," or on the lungs, or both combined. For the above mentioned "croaker" we are not aware that any remedy was ever devised; but we rejoice to know that all human singers may keep their heads clear and their throats in tune by a timely use of Dr. Sage's Catarrh Remedy, and Dr. Pierce's Alt. Ext. or Golden Discovery, both of which are sold by druggists.

### Raising Calves by Hand.

At a recent meeting of the Farmer's Club, held at Rees' Corner, Kent County, Maryland, Mr. C. C. Wood, who is known as a successful raiser of calves by hand, explained to the Club his plan, as follows:

"Tock calf from the cow soon as it fell; let it in the second day. Calf was hungry; would suck the fingers and would eat. First week gave new milk; second week new and skim milk mixed; if had not milk enough, boiled flax seed; 1 pint of seed enough for eight calves; at six weeks old gave sour milk. If the calf scours use a little laudanum or salt; a little salt should be used all the time with the food. Finds by this method he makes milk and butter enough by time calf sells for veal to pay for calf, although for good veal he does not adopt this method, but lets calf and cow both run together upon good grass. Keeps from 8 to 12 cows, and sells from 1000 to 1200 pounds butter each year."

The subject under discussion at the same meeting was "The Fattening of Cattle," which was engaged in by Messrs. Thomas, Jno. P. Smith, John V. Crosby, Capt. Downey, Mr. Edes, B. F. Beck, Jr., Mr. Scoone, Mr. Leary, Mr. Leaverton, Mr. Conly and others. Kent County is now fairly awake to the benefits and importance of Farmer's Clubs, and in addition to the County Society, are organizing District Clubs, at whose meetings will be had discussions on all subjects of interest to the farmer.—We wish them success.

The following we take from the *Maine Farmer*:

**HOW I RAISE MY CALVES.**—I take them from their dams after they suck for two or three days, then I feed with new milk ten or fifteen days, twice each day. For the next week they should have warm milk, skimmed at 12 hours old. Gradually thereafter I feed with old milk, till at four weeks old, then I give them any kind of refuse milk cold, with crusts of bread or porridge in small quantities.—From the time they are a week old a little of the best early cut hay should be given them three times a day. At three months old I wean and turn them to pasture, though it is well to continue the broken bread, porridge, or a little rye meal or oats occasionally.

**LIQUID MANURE TANKS.**—There is no one thing connected with garden or lawn that pays so well for the little labor and cost as a conveniently arranged liquid manure tank, into which all the chamber lye and soap suds of the house may be readily conducted. It is merely to sink a tight barrel or larger cask in the earth, and by a pipe laid eighteen inches deep in the ground, connect it with a wire-screened drain receiver at the house, taking care that there shall be sufficient fall to have the water run rapidly and free. It only requires a trial of one season to convince any observing man of the profitable value to be derived from distributing the liquid from time to time on strawberry, asparagus and flower beds or grass plots.—*Rural New Yorker*.

## MARYLAND JOCKEY CLUB.

A meeting was held at Barnum's City Hotel, in this city, on Tuesday evening, June 14th, composed of leading merchants and bankers and influential gentlemen from various parts of the State, for the purpose of organizing what is to be known as the Maryland Jockey Club.

On motion of Gov. Bowie, Dr. S. Hanson Thomas was called to the chair, and Henry E. Johnston appointed secretary.

A committee, consisting of five, was appointed to suggest officers for a permanent organization of the association. Gov. Bowie, W. W. Glenn, Alexander D. Brown, E. Law Rogers and James L. McLane being the committee. The committee, after a brief conference, reported as the result of their deliberations that there shall be appointed a president, two vice presidents, (one from the Eastern, and one from the Western Shore,) a clerk of the course, secretary, treasurer and five race stewards, the stewards to have sole control of all races and the course, to appoint judges, timers, &c., which was adopted.

Mr. Merryman moved that a committee of three be appointed to nominate officers of the club, which was adopted, and the chair appointed Messrs. John Merryman, Philip T. George and Dr. McPherson. The committee subsequently reported the following names, and the report was adopted: Governor Bowie, president; Washington Booth and Col. Ed. Lloyd vice-presidents; James L. McLane secretary; Henry Elliott Johnston, treasurer; W. W. Glenn, J. D. Kremmelberg, F. M. Hall, George Small and F. B. Loney, race stewards.

On motion of Mr. Loney, the officers elect were empowered to appoint a committee to prepare a constitution and by-laws, and to confer with the Maryland Agricultural Association relative to the use of the race course at the cattle show grounds.

Gov. Bowie made some remarks, thanking the club for the honor conferred on him. He referred to the fact that the Maryland Jockey Club originated at Saratoga in 1868, when thirty subscribers were obtained at \$1000 each for the first race, the dinner table stake. The officers of the Jerome Park had already offered a bonus of \$5,000 to the parties provided the race was run over their course, but the offer was declined and Baltimore named as the place. The Governor said that one feature of the meeting would be a four mile dash, it having been asserted that no horse could stand such a trial. Among the eighteen horses entered for this race was one valued at \$25,000, and another \$30,000. The Governor stated that on a recent visit to New York, he found much interest manifested in the Baltimore fall races, and inquiries were already being made whether Baltimore would have sufficient hotel accommodation. He was satisfied that all the hotels would be filled to their utmost capacity. Mr. Booke, president of the Western Maryland Railroad Company, had informed the Governor that the company is ready to construct a switch from its road to the cattle show grounds, and that the road will be completed in time for the fall races, if no unforeseen difficulty occurs with property owners on the line of the proposed route.

The Governor concluded his remarks by moving that the presidents of the Board of Trade and the Corn and Flour Exchange interest themselves in the matter of soliciting subscriptions to the Jockey Club. The resolution was adopted and the meeting adjourned until Tuesday evening next June 21st.

One hundred and sixty names, it is understood, are already appended to the list of subscribers, with a prospect of a considerable further increase.

At a subsequent meeting of the Club, held June 21st, the following proceedings were had—Gov. Bowie in the chair, and John T. Ford, Esq., acting as secretary:

W. W. Glenn, Esq., chairman of the meeting of the officers and stewards of the club, reported as the result of their deliberations the following propositions, which had been accepted by the Executive Committee of the Maryland Agricultural and Mechanical Association:

1st. The Maryland Jockey Club shall pay to the Maryland State Agricultural Society the sum of \$10,000, for which certificates of stock shall be issued in sums of \$500 each.

2d. The stewards of the Maryland Jockey Club shall at the expense of the club put in order and prepare the track of the show grounds of the Maryland State Agricultural and Mechanical Association in time for the annual exhibition of 1870.

3d. The Maryland Jockey Club shall, after the fall meeting of 1870, prepare its track at its own expense, and all stabling and additional buildings needed by the Jockey Club shall be erected at its expense.

4th. The members of the Maryland Jockey Club shall, in common with others, have the free use of the track for themselves and their horses for training or driving at all periods of the year, free of expense, subject to such regulations as the Maryland State Agricultural and Mechanical Association shall make.

5th. The Maryland Jockey Club shall have entire control of all gate moneys and receipts during the race meetings, and while it has possession of said grounds under the agreement. It shall have control of the property of said association during the months of May and October in each year, and shall deliver said property to said association in as good condition as that in which it is received. It shall have free access for its members, agents, servants, &c., at all times during all periods of the year, except during the annual exhibition of the Maryland State Agricultural and Mechanical Association, for the purpose of making all necessary improvements and repairs.

6th. This agreement shall last for ten years, unless terminated sooner by notice from the Maryland Jockey Club. The report was accepted.

Gov. Bowie stated that the \$10,000 proposed to be paid the Maryland state Agricultural and Mechanical Association was for the purpose of paying off an old debt of the association. This sum he was satisfied could be raised by a plan contemplated of making life members on the payment of \$500 each. Already nearly a sufficient number of gentlemen had agreed to become life members to make up the sum.

W. W. Glenn, Esq., reported a constitution for the club, which was adopted. The society then proceeded to the election of officers to serve during the ensuing year with the following result: President, Gov. Bowie; first vice-president, Washington Booth; second vice-president, Col. Edward Lloyd; secretary, James L. McLane; treasurer, Henry E. Johnston; executive committee, Wm. Devries, T. H. Morris, J. Hanson Thomas, Jacob Brant, Jr., T. B. Ferguson, Alex. D. Brown, Robert Garrett, Edward Patterson, Jr., John Ellicott and F. Raine.

THE WESTERN STOCK JOURNAL for June is on our table, and as usual, is filled to repletion with wise counsel, practical hints and general information on all subjects concerning the breeding and management of stock. It numbers among its corps of contributors, the best writers to be found among the practical stock breeders of the nation. So much valuable information for \$1.00 a year makes it a miracle of cheapness, and its unparalleled success attests the fact that stock raisers appreciate its value and acknowledge its merits. Fifty cents will pay for the Stock Journal from April to the end of the year. Address J. H. SANDERS, & CO., Sigourney, Iowa.



## Horticultural.

### CURCULIO EXTERMINATION POSSIBLE.

We have received from the Secretary of the St. Joseph, Mich., Horticultural Society, J. E. Chamberlain, Esq., an extra of his paper, the St. Joseph *Herald*, containing what purports to be a new discovery for the destruction of this terrible pest.—We give the entire article :

The importance of this subject ; the demand for prompt and persistent action ; the absolute necessity of arousing every peach, plum and stone fruit-grower to destroy the curculio, have led the editor of the *Herald*, as Secretary of the St. Joseph Fruit-growers' Association, to issue this extra. Not a single day should be lost, for with united action 500,000 curculios may be killed in a single day.

There is no doubt on this point. This morning Hon. John Whittlesey called at the *Herald* office and stated that on the 14th inst., he killed 2,715 curculios about the roots of 200 trees, and on the 15th, in four hours on the same trees he killed 1,566 by actual count.

Mr. Whittlesey also stated that Mr. Ransom, Mr. Bonelle and himself had in five hours killed upward of 5,000 curculios in a portion of three small orchards—that he had himself alone in two days of eight hours each killed one-half more curculios than were ever taken by three men, with the old fashioned sheet in a week. Mr. Whittlesey is one of the most successful and scientific fruit-growers of St. Joseph, whose word is a bond ; but he said, "Do not believe me ; go to Mr. Ransom's orchard and see for yourself."

Entering Mr. Ransom's orchard, the editor met Dr. Lyman Collins coming out. Dr. Collins is widely known for his successful peach culture.

"Well, Doctor, is it a success ?"

"Most assuredly. I tried the experiment on eight of my trees in the evening, and the next morning took 104 curculios. I am going home to bug my whole orchard in this manner."

Wm. B. Ransom, the discoverer of the new method of exterminating the curculio, was found in the back of his orchard examining his curculio traps. This was at 10 o'clock A. M., and he had already killed 1,357 on 300 trees. The editor stooped down and lifted a corn cob not six inches long, and found and killed seven curculios. There is no doubt whatever that the long desired means of exterminating the curculio is discovered. Here is it :

Put the orchard in the best order ; level down the soil about the root of every peach tree, and smooth a circle for a diameter of two and a half feet from the tree as a centre. Have the ground very clean around the base of tree. Do not leave a single hole next the tree. Leave no place where the curculio can hide except under the shelter you provide. Now lay close to the tree, and close to the ground, about four pieces to a tree, either chip, or bark, or board, or lath, or rag, or corn-cob, or old leather, or anything for a covert.

The curculios will conceal themselves under this shelter and may be destroyed by the thousands.—Go around every day and turn over each chip, kill every curculio. They will generally adhere to the

chip, but may often be found on the ground under the chip.

Probably no person in the United States has studied the curculio and its habits more carefully than William B. Ransom. For 15 years he has been trying newspaper experiments unsuccessfully. Last year when bugging he discovered that all the curculios dropped within two or three feet of the roots of the peach tree, and on examination found the little Turk sheltered on the trunk and in holes near the base and the under side of the principal limbs.

For the last fortnight Mr. Ransom has spent most all the hours of the day laying on the ground in his orchard patiently watching and waiting for the first curculio to show itself. On the 4th of May a few single curculios were discovered, but not a single pair ; on the 5th a few pair were found coupling. Constant, careful observation has led Mr. Ransom to these conclusions :

In the Fall the curculio seeks a warm and safe shelter to hibernate. This is either the ground, or leaves, stumps, logs, old fences, woods, and other congenial places of concealment. The first warm day in Spring that starts vegetable life calls the curculio forth and it proceeds to its feeding and breeding ground. They walk very fast, and they fly and feed generally at night, eating the young and tender leaves. The first warm days this year they fed, then the weather fell cold, and for a week Mr. Ransom found no indication of their feeding.

They crawl on cold days and nights, and hide under the shelter of the trunk of the tree, waiting to feed when the nights become sufficiently warm. The curculio uses the green peach only to hold its egg. It sometime eats the ripe peach, also blackberries, quinces, and other fruits.

Some idea of the quantity to be taken from a single tree may be found from the following :—Mr. Ransom states that on the 14th he took 25 ; on the 15th in the morning, 50 ; in the evening about sundown, 15 ; and on the 16th, 60 were killed from the same tree, and of these 41 were taken in a cluster under a chip two by three inches.

The editor of the *Herald* visited Mr. Ransom at 1½ o'clock, P. M., and found he had in about four hours killed 2,109 by actual count, and went himself into the orchard and found curculios lying asleep under the traps in the intense heat of a broiling sun.

**FLIES ON HORSES.**—The *Journal of Commerce* gives the following as a preventive of horses being teased by flies : Take two or three small handfuls of walnut leaves, upon which pour two or three quarts of cold water ; let it infuse one night, and pour the whole next morning into a kettle, and let it boil for a quarter of an hour. When cold, it will be fit for use. No more is required than to moisten a sponge, and before the horse goes out of the stable, let those parts which are most irritable be smeared over with the liquor, viz., between the flanks, etc. Not only the gentleman or lady who rides out for pleasure will derive pleasure from the walnut leaves thus prepared but the coachman, the wagoner and all others who use horses during the hot months.

WEBSTER'S NATIONAL PICTORIAL DICTIONARY.—"The work is really a gem of a Dictionary just the thing for the million." Published by G. & C. MERIAN, Springfield, Mass. Sold by all Booksellers.

## The Dairy.

### A CHAPTER ON BUTTER.

No one thing enters so universally into the husbandry of the country as the making of butter. The poor man has his single cow; the rich, some of them, fifty or more, and the aggregate production of these million dairies is immense. To add to the amount or to improve the quality is of consequence; and here are our recommendations for doing both:

#### AS TO QUANTITY.

The first requisite is good cows. They may yield a large quantity of milk, and yet not make a large quantity of butter, as the per cent of butter in the milk is all the way from three to six of its strained weight.

The cows must be well fed. Between fair feeding and extra feeding simply with grass or hay, there is a difference of from four to six ounces of butter a day.

Cows should be milked at exactly the same time, morning and night, with an interval of as nearly twelve hours between as possible. They must be be milked quickly and clean.

Immediately after the milking is done, the milk must be strained into pans, and these pans set on a milk-rack in a room where the temperature is as cool and as even as possible. The milk should be skimmed in the summer as soon as it has become thick, and if the dairy is sufficiently large, the churning should be done each day. If the experiment is at all a success—which can only be ascertained by trial—churn the buttermilk after the first and most generous instalment of butter has been removed. The cream of some cows does not and will not come as soon as that of others, and there is likely to be considerable loss for this reason. Strain the buttermilk, so that every particle of butter may be saved and added to the general mass.

The observance of these recommendations will add from three to six pounds a week to any given dairy of ten cows, where the former treatment has been careless, and the same food given to good butter cows, instead of poor ones, will make a difference of from twenty-five to thirty-five per cent of the total product.

#### AS TO QUALITY.

Good butter cannot be made when the milk-pail is not clean and sweet. If it has not been thoroughly scalded and dried (in the sun when possible), top end up, it will be neither.

Nor can it be done if a shower of dust, dried manure, and scurf, is permitted to constantly fall into the pail from the udder and side of the cow while she is being milked in the morning or at night.

Nor can it if the milk in the pails is left standing in the barn-yard, waiting transportation to the house, as nothing is so susceptible to taints.

Nor if the pans are not, equally with the pail, clean and sweet, which can only be secured in the summer by an abundance of boiling water and scalding sun.

Nor can it, finally, if the milk-house is unshaded, or in the neighborhood of a privy or hog-pen, or when from the cow to the butter-mould there is not absolute and complete cleanliness.

The cooler the temperature, the less manipulation with the hands, and the sooner the churning is done after the cream, unmixed with any foreign substance, has been taken off and well stirred together, the better.

The best implements to use in making the best butter, are wooden pails, zinc pans, a wooden crank churn, one wooden scoop, and two paddles, all in the hands of a person immaculately clean herself, and who is liable to go into hysterics if all the processes and paraphernalia that pertain to the business are not equally so.—*Hearth and Home.*

A LUSUS NATURÆ IN PEACH BLOSSOMS.—*Messrs. Editors Scientific American:* A curious *lusus nature*, or rather a law of agricultural science is observable in the peach blossom of this year, producing twins or triplets. That this is the result of a general law is evident from the concurrent testimony of widely distant regions, and on both shores of the Chesapeake. The Agricultural Report for 1866 (p. 203) states that peaches are grown with complete success only after the ground has rested for a period of twenty years, during which time the peach district moves from North to South about fifty miles, and then returns at a single leap to the place of beginning. By calling attention to these facts the cause of agricultural science might be advanced.—Is there a periodicity in the former case as in the latter? Has this twin development been observed above the 39th parallel? GEO. A. LEAKIN.

#### STATE FAIRS FOR 1870.

We give the following list of the times and places of holding State Fairs in the Autumn of 1870.

Illinois.....	Decatur.....	Sept. ....
Iowa.....	Keokuk.....	Sept. 13-16
Kansas.....	Fort Scott.....	Sept. 27-28
Minnesota.....	Winona.....	Sept. 20-23
Nebraska.....	Brownville.....	Sept. 20-23
New York.....	Utica.....	Sept. 27-30
Ohio.....	Springfield.....	Sept. 13-16
Ontario.....	(Provinc.).....	Oct. 3-7
St. Louis Assoc'n.....	St. Louis.....	Oct. 3-7
Wisconsin.....	Milwaukee.....	Sept. 27-30
Kentucky.....	Henderson.....	Oct. 4-...
Maryland.....	Baltimore.....	Sept. 27-31
North Carolina.....	Raleigh.....	Oct. ....
Georgia.....	Atlanta.....	Oct. 16-26

An Ohio woman has coughed up a fish bone she had in her throat forty-two years. It restored her voice, and her husband wants a divorce.



## Ladies Department.

### THE MOTHER'S LOVE.

—There is none, In all this cold and hollow world, no fount Of deep, strong, deathless love, save that within A mother's heart—It is but pride, wherewith To his fair son the father's eye doth turn, Watching his growth. Ay, on the boy he looks, The bright glad creature springing in his path, But as the heir of his great name—the young And stately tree, whose rising strength ere long Shall bear his trophies well. And this is love! This is man's love! What marvel? You ne'er made Your breast the pillow of his infancy, While to the fullness of your heart's glad heavings His fair cheek rose and fell, and his bright hair Wave softly to your breath?—You ne'er kept watch Beside him till the last pale star had set, And morn, all dazling, as in triumph broke On your dim weary eye: not yours the face Which, early faded through fond care for him, Hung o'er his sleep, and duly as heaven's light Was there to greet his wakening. You ne'er smoothed.

His couch, ne'er sung him to his rosy rest, Caught his least whisper, when his voice from yours Had learned soft utterance; pressed your lips to his When fever parched it; hushed his wayward cries, With patient, vigilant, never-weary love! No! these are woman's tasks!—In these her youth And bloom of cheek, and buoyancy of heart, Steal from her all unmarked!

### GOOD NIGHT!

O, sweet my love, the hour is late  
The moon goes down in silver state,  
As here alone I watch and wait.  
Though far from thee, my lips repeat  
In whispers low, Good Night, my sweet.

The house is still, but o'er the gloom,  
Or star lit gardens faint with boom,  
I lean out from my darkened room.  
And only hear the roaming breeze  
Move softly in the lilac trees.

Somewhere beneath these gracious skies,  
My bonny love a dreaming lies,  
With slumber brooding in her eyes.  
Go seek her, happy wind so free,  
And kiss her folded hands for me.

Across this dome of silent air,  
On ties of floating ether bear,  
To where she sleeps, my whispered prayer,  
The day has brought the night forlorn—  
God keeps thee, little love, till dawn.

### A SUBTLE SCHEME.

"I hear you are going to marry my cousin, Emily Seymour, Mr. Firmstone. Men are very fickle. Scarcely two months ago you were languishing at my feet, uttering vows of constancy; and when I broke off our engagement, you talked about hiding your sorrows in an early grave, and nonsense of that sort. Emily is a skillful angler; she has caught her fish cleverly. I fear the barbed hook, matrimony, will hurt the poor creature, nevertheless," said Maud Montague, addressing a handsome young gentleman who had lounged into a picture gallery.

Her pretty upper lip curled as she spoke, her dark eyes flashed, and the tone of her voice was harshly unpleasant.

"A man has to steel his heart occasionally, Miss Montague. Some disappointments are hard to contend against, but a sensible man battles them bravely down. You compelled me to resign all claim to your hand; afterward, I withdrew my love of my own free will. Can you blame me for

so doing?" replied Firmstone, softly, but with calm dignity.

"No; I could pity you now, if you deserved compassion. You do not understand Emily yet. When the sunshine of her smiles give place to the tempest of her anger, so much the worse for you!" answered Maud, sneeringly, as with scornful action, she swept from the gallery.

Maud Montague was the only daughter of a wealthy merchant in New York. Her mother was of Spanish extraction; and it seemed as if the fiery Castilian spirit had been inherited by her daughter, for she was passionate and jealous in the extreme.

Mr. Cecil Firmstone was a stockbroker, who by shrewdness, had amassed a considerable fortune, and by fair dealing and integrity, had won the esteem of all those with whom he associated. Attracted by the peerless beauty of Miss Montague, he had wooed her for his wife, and she had consented to marry him; but soon her passionate and dictatorial temperament caused a quarrel between them. She gave him his dismissal, and the betrothal was annulled.

Maud little thought that she would lose him for ever, or her action would have been less hasty. She imagined his love for her would be invigorated by temporary estrangement; and that ere long he would supplicate forgiveness for his uncommitted fault, and be still more docile in the future. Therefore she was madly incensed when she heard he was engaged to her cousin Emily, and her vindictive spirit prompted her to revenge herself for what she was pleased to consider his mutability.

Emily Seymour, although coeval with her cousin, was of a very different nature. She was an orphan dependent upon her uncle (Maud's father), her only inheritance being her beauty, and sweet gentle temper. She had much compunction, at first, in accepting the addresses of Cecil Firmstone, fearing her cousin might consider she had supplanted her; but Cecil assured her so positively that his old love had died out, and that there was no possibility of the breach between Maud and himself ever being closed, that she was fain to obey the dictates of her pure, warm little heart, and betroth herself to the man she had long regarded with admiration.

"He shall not live to wed her. I have loved him, but now hate and despise him," murmured Maud, as she descended the stairs of the picture-gallery, subsequent to her interview with her late lover.

In no very enviable frame of mind, she walked rapidly across Union Square muttering her plan of revenge, nursing the wrath in her bosom until it fired and maddened her.

Pursuing her way, she presently turned into a by-street, and halted before the door of a shop, the windows of which, being filled with stuffed animal and birds, indicating it was tenanted by a naturalist. She read the name upon the sign, and entered the place.

"You are the proprietor of this establishment, I presume;" she said, interrogatively, to a weazen-faced old man.

"Yes, ma'am. What can I do for you?" he replied, glancing instinctively toward a wicker-basket containing a litter of Pomeranian puppies.

"I am studying ichthyology, and I wish to purchase a live snake," said Maud.

The old man's wrinkles twisted into smiles.

"I have some specimens, madam. Of what species did you require one?" he asked.

"I should like to see a rattlesnake, if you have one."

The naturalist's ferret eyes open wide.

"What whims fine ladies have to be sure," he thought. Then, aloud, "I have several fine specimens of the *Crotalus durissimus*. If you will be seated, I will produce them."

Miss Montague drew the sweeping flounces of her rich silk dress from contiguity with a dirty rabbit hutch, and

seated herself upon a cage containing Marmoset monkeys. Presently the old naturalist returned; and Maud started as she saw that the flexuous folds of a serpent were twined about his arm, while his fingers tightly clutched the nape of the glittering reptile.

"This is the finest rattlesnake in my collection, madam."

"But it is fangless, or you would not dare touch it," said Maud, derisively.

"You are in error, madam. I would not loose my present hold of it for all the world's riches; for no earthly power could save my life if it once struck me," he answered.

"It is a beautiful creature! I will purchase it if you will carefully inclose it in a box for me. You can name your own price," she added, seeing the man hesitate.

The naturalist seemed amazed beyond expression. He was on the point of refusing to barter it, fearing his visitor was insane; but his cupidity got the better of his principle, and he shut up the serpent in a small case, fastened the lid securely down, received payment for it, and bowed the fair girl out of his shop.

"I have now wherewith to accomplish my revenge," muttered Maud, as she took her place in a cab.

\* \* \* \* \*

"Uncle has asked Cecil to dine with us to-day," said Emily Seymour to her cousin, as the two girls were sitting in the latter's boudoir during the dusk hour.

"Has he?—then I suppose you are happy?" replied Maud, with attempted nonchalance, though she tweaked the beak of a tame cockatoo, a genuine specimen from Australia, that had perched upon the marble mantle, until it uttered a shrill shriek of anger.

During the evening, Maud was unusually reticent. She was frigidly civil to her late lover; but it was evident she was terribly chagrined at his having transferred his affections to her cousin.

At a later hour she left the room, went to her own apartment, and carefully concealing the snake's small cage under a shawl, which she threw over her alabaster shoulders, descended to the hall. Cecil's overcoat and hat were hanging near the door. The servants were below, and there was no prying gaze to detect her moments. Extending the office of the side pocket of Firmstone's coat, she inserted the box, swiftly unfastened the catch which kept down the lid, shook the reptile into the recess beneath, withdrew the case, and unbuttoned the lapped of the pocket. Then she replaced the box in her room, and returned to her friends.

Mr. Firmstone rose to pay his adieux, prior to taking his departure. He looked so handsome as he bade "good night" to Maud, that she half repented the step she had taken, and felt almost inclined to warn him of his peril; but at that moment she caught her cousin's eye, and all her jealousy returned.

"Good night! the last time he will ever utter these words to me!" she thought.

Emily accompanied Cecil to the door—a lover's privilege.

With terrible anxiety, Maud awaited some sign that the reptile had done its work.

"Ah!"

The half-suppressed exclamation reached her where she sat, and she trembled in every limb. It was Cecil's voice, and she fancied the death blow had been struck.

"What was the matter, Emily? I heard Mr. Firmstone utter a cry of pain," she said, when her cousin re-entered the room.

"A cruel pin sticking in his coat-pocket, tore his hand, poor fellow. He assured me that it was a mere scratch he received, but the wound bled quite freely. I hope it will not produce tetanus," replied Emily.

"It will produce a swifter death than that," thought Maud.

"He will be dead ere morning dawns!"

\* \* \* \* \*

"There's a divinity that shapes our ends, rough how they come we may." When Maud retired to her chamber, and commenced her nocturnal toilet, the pretty cockatoo located in her boudoir, instead of sleeping like a respectable bird, so annoyed her with his ceaseless chattering, that in order to quiet him, she brought him into her bedroom, and perching him upon a towel-horse, bade him court repose at once.

Maud's luxuriant tresses, black as raven's wings, fell in wavy profusion over her sloping shoulders; and she was complacently admiring while arranging them, though wondering, meanwhile, whether he who had so lately toyed with them might not be then in the throes of death, when a shrill, discordant cry from Tippoo Sahib—who, leaving his rest, circled once in the air, and then dashed, hawk-like, down on some unseen foe—startled her.

The bird fluttered, and wrestled on the floor, and Maud flew to his aid, fearing he was in a fit; but she recoiled when she saw that his strong beak was fastened securely in the neck of a long, writhing serpent, whose body gleamed and flashed scintillant in the mellow light, as it strove to free itself from the death grip of the valorous bird.

Maud rushed to the door, and flinging it wide open uttered a piercing cry for help. It came in the person of her father, who, seeing at a glance how matters stood, left the cockatoo to wage battle with the deadly reptile, while he attended to his now fainting daughter.

Tippoo was soon victorious. Amid the wilds of his native Australian home he had a foretime often encountered similar foes, though none so poisonous; and ere Maud revived he was giving vent to his exuberant joy in inharmonious screeches, while he fluttered over his now stiffening antagonist.

How the rattlesnake had gained ingress to Maud's chamber was a nine days' wonder in Mr. Montague's household, but as that young lady kept her secret inviolate, a totally erroneous hypothesis was accepted.

Perverently thankful that her evil design had been frustrated, now that the full enormity of it became clear to her calmer mind, Maud tendered the olive-branch to Cecil Firmstone; and on his marriage day no one offered him sincerer congratulations than the fair girl who had planned the devilish scheme for his annihilation.

## GRAND INDUSTRIAL EXPOSITION.

The General Committee of the Chamber of Commerce, Board of Trade & Ohio Mechanics' Institute, of Cincinnati, respectfully announce that a Grand Industrial Exposition of Manufactures, Products and Arts, will be held in Cincinnati, commencing Wednesday, Sept. 21st, 1870, and continuing until Oct. 15, 1870, to which Artisans, Manufacturers, Inventors, and all engaged in the production of Works of Art and Ingenuity are invited to contribute. Ample preparation have been made for the exhibition of Machinery in operation, for the prominent display of Manufactures, Works of Art and Products; and also for the general convenience of Exhibitors. Arrangement are being made for the cheap transportation of articles for exhibition from all parts of the country, and for their removal from the Depots and Wharves in this city to place of exhibition with safety and at low rates. Circulars containing full and specific information relating to the Exposition may be obtained by addressing "Cincinnati Industrial Exposition," Cincinnati.

**Hearth and Home** for June 25th, contains the first of a series of sketches entitled *Jethro Throop's Night Thoughts* by JOHN THOMAS, who is no other than PETROLEUM V. NABBY. The great humorist will take an honest country boy to the city, conduct him through the usual experience, and restore him to his home a sadder and wiser boy, satisfied that the peaceful, honest, and temperate life of the farmer is the best and safest life that can be lived. This is a lesson greatly needed at this time, and NABBY is the man to teach it. We recommend the *Hearth and Home* to every freind in the country. Published by Tiptingill, Bates & Co., New York, at \$4.00 per annum—weekly.



## DOMESTIC RECIPES.

**BLACKBERRY WINE.**—I take four quarts of berries, bruise and add one quart of boiling water. Let it stand twenty-four hours, stirring often. Then add two quarts brown sugar and put in a jug, loosely cork for three weeks, then bottle or cork up tightly.

**CURRENT WINE.**—One quart of juice, two quarts of water and three pounds of sugar. Put it into a jug or keg when well mixed. Tie muslin over the mouth. In three weeks cork up and let stand till March, then bottle. (I add one quart of alcohol for thirty-six quarts of wine.)

**TO MAKE VINEGAR.**—Eight quarts of warm water, one quart of molasses, mix in a stone jar, set in a warm place, in twenty-eight days it will be sharp vinegar.

**TO CLEAN CARPETS.**—A few drops of carbonate of ammonia in a small quantity of warm rain water, will prove a safe and easy anti-acid, and will change, if carefully applied, discolored spots upon carpets, and all spots, whether produced by acids or alkalies. If you have a carpet injured by white-wash, this will restore it.

**TO CLEAN MATTING.**—Put a double handful of salts into a bucket of cold water; wash the matting, a small piece at a time, rub it well with a coarse cloth; avoid treading on the matting until it is dry.

**LIQUID GLUE.**—Melt a little isinglass in spirits of wine, adding one fifth water, using a gentle heat; when perfectly melted and mixed, it will form a transparent glue, which will unite glass so fast that the fracture will hardly be seen. To exterminate roaches and ants, wash the place carefully; when dry sprinkle powdered borax freely. In a few days they will disappear.

**YEAST.**—Take a pint bowl of hops and two quarts of water, boil down to one quart; put seven or eight spoonfuls of flour in a pan and strain the hop-water boiling upon it; when mixed it should be a thick batter; when it becomes milk-warm stir in a breakfast cup of good yeast, then pour it into bottles two-thirds full, stopping them with paper. Set them in a milk-pan by the fire, and as soon as the contents rise to the top of the bottles put them on the cellar-floor till the yeast falls; then cork and keep the bottles on the cellar-floor or in the ice-house or refrigerator. In very warm weather the corks ought to be removed every day to let the air out, and put in directly again, otherwise they are apt to burst.—*Cor. Germantown Telegraph.*

**MUSK SOAP.**—Melt white Castile soap, and while cooling, add to each pound one drachm of tincture of musk, and three or four drops each of the oils of bergamot, sassafras, cinnamon and cloves.

**FRENCH BOUQUET d'AMOUR.**—This popular perfume is made by mixing together two parts each of the essences of rose, jasmine, cassia and violet, and one part each of the extracts of musk and ambergris.

**HAIR WASH FOR REMOVING DANDRUFF.**—Take of borax, one drachm; rose-water, half a pint; tincture of cantharides, night and morning.

half a drachm; cologne water, half a pint; mix, and apply  
**WASH TO PREVENT THE HAIR FROM FALLING.**—Bay rum, 5 ounces; carbonate of ammonia, 1 ounce; borax, one ounce; rose water, 1 quart; mix and filter.

Anna Dickinson says that "there is no work a man can do but that it will be better done by having a woman at his side." "How about currying a kicking mule?" asks a correspondent.

## Officers of the Maryland State Agricultural and Mechanical Association.

*President*—William Devries.

*Corresponding Secretary*—Edmund Law Rogers.

*General Secretary and Treasurer*—Benjamin H. Waring.

*Executive Committee*—William Devries, John Merryman, Ezra Whitman, Eli G. Ulery, Joseph H. Rieman, Hon. Oden Bowie, Edmund Law Rogers, Col. Edward Wilkins, Dr. W. S. McPherson, General Geo. S. Brown, Dr. W. H. DeCoursey.

*Marshall*—Richard F. Maynard.

*Orator*—Robert C. Barry.

## COMMITTEES.

*Committee on Privileges*—To determine applications for Booths, Stands, Exhibitions and general arrangements, Jos. H. Rieman, Chairman, John Merryman, Gen. George S. Brown.

*Committee on Exhibition Hall.*—Richard Norris, Chairman, J. Summerfield Berry, John W. Davis, Dr. W. H. DeCoursey, Chas. E. Waters.

*Committee on Grand Stand.*—Wash. Booth, Chairman, Dr. W. S. McPherson, Jas. S. Waters, Chas. D. Slingluff, William Wilson.

*Committee on Track.*—Gen. George S. Brown, Chairman, Josiah Lee Johnston, Chas. Ridgely, of H.

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C. Oliver O'Donnell,	Wm. H. Norris,
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	Dr. George R. Dennis.

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Col. S. K. George, Jr.	Warfield Theobald,
Col. John Carroll,	S. K. G. Devries,
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## New Advertisements.

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Nine times in ten, the failure of crops arises more from a want of knowledge of the soil, or an intelligent system of culture, or the grain or fruit suited to the soil, and the proper time of planting, than to an unfavorable season or any other natural cause.

## HAND BOOK OF HUSBANDRY.

This is pre-eminently the king of Agricultural Books.—It is full and complete in every department pertaining to Farm Operations; Farm Buildings and Implements; Drainage; Manures; Grain and Root Crops; the Dairy; Live Stock, their Care and Management, etc. etc.; with other useful information and labor-saving calculations and data connected with agriculture.

This is not a compilation of receipts and newspaper extracts, but the careful work of a man of recognized genius and practical experience. Geo. E. Waring, Jr., of Ogden Farm, the author, is the well known author of "Elements of Agriculture," "Earth Closets and Earth Sewage," published by the *New York Tribune Association*; also of "Draining for Profit and for Health," published at the office of the *American Agriculturist*. He was Agricultural Engineer of the New York Central Park during its construction; and is now, and has been for a number of years, the Agricultural Editor of the *New York Evening Post*; and having under his own personal control a farm of over sixty acres, is to-day one of the most successful stock-breeders and practical farmers to be found in the length and breadth of the land. These facts are a satisfactory guarantee of the real merits and practical utility of the work, which speak for themselves, requiring no comment at our hands.

An idea of the character of the work may be gathered from the following extract from the introduction:—

"My book is intended especially for those practical, working farmers who are willing to believe that while they have learned much from their own experience, it is not impossible that other farmers (and men in other vocations as well) may have learned something too, something that it may benefit them to learn also; and who are liberal enough to see that all the truth and value of a fact are not destroyed by its being printed. As will be seen by reference to the table of contents a wide range of subjects is discussed; in fact I have endeavored to write just such a book as a young man, learning another occupation and turning his thoughts to farming, would be glad to take for his guide; and to such I say that there is not an important statement in these pages that I do not know to be reliable, nor a theory advanced that my own experience has not taught me to approve."

Published by E. B. Treat & Co., New York.—it contains 604 octavo pages, and sold only by subscription, at \$3.50, for which agents are wanted. Every farmer should secure a copy.

THE MEN WHO ADVERTISE: AMERICAN NEWSPAPER RATE-BOOK, AND NEWSPAPER DIRECTORY. New York: Geo. P. Rowell & Co., 40 Park Row. 1870. Royal octavo, pp. 872.

In a large but compact volume we have here the results of more than a year's careful compilation of materials, and furnishing a complete exhibit of the newspaper business of America. The volume really contains three works bound in one, the first thing being a series of spirited sketches of those persons who have acquired fortune and fame by advertising, including such men as Bonner and Barnum, and compiled in many cases from original materials. This is followed by a Rate-Book, showing the charges and cost of advertising in nearly all of the prominent newspapers in the United States and British Provinces adjoining, thus giving to the possessor of this volume a quantity of condensed information hardly to be found elsewhere, and the third part of the book is an extensive and accurate Directory of newspapers in English-speaking countries in North America. The growth of the newspaper press in America has in it something of the marvellous, and few indeed of those in the business can name one-tenth of those published. In this prodigious activity New York city takes the lead, followed by New England and Ohio, but there is no portion of the country where newspapers are not a necessity. Nearly six thousand periodicals are published in the limits embraced by this book, and for each of them a brief *resumé* is made, giving the name of the proprietors and editors, the date of establishment, the extent of circulation, the politics, and much other useful information. The whole forms a truly useful compilation for editors and publishers as well as that large class of persons whose success depends upon that of the press, such as type foundries and press manufacturers and advertisers.

## MAKING SOAP.

Every farmer's wife, says the *Ohio Farmer*, is proud of a barrel of soap, but some are so unfortunate as to seldom get one. They try hard enough, but the ashes are sometimes poor, or the right proportions of lye and grease are not used; at other times the soap appears to be good when put up, but changes entirely after standing a few days. The last trouble usually arises from getting the soap too strong and diluting with water. If very strong it will be thin and dark, and by adding cold water and thoroughly stirring, the color is changed many shades lighter, and the mass thickened, giving it the appearance of a number one article, when in reality it is very poor.

Hickory ashes are the best for soapmaking, but those from sound beech, maple, or almost any kind of hard wood, save oak, will answer well. A common barrel set upon an inclined platform, makes a very good leach, but I much prefer one made of boards set in a trough in V shape, for the strength of the ashes is better obtained, and it may be taken to pieces when not in use and laid up.

First, in the bottom of the leach put a few sticks; over them spread a piece of carpet or woolen cloth, which is much better than straw; put on a few inches of ashes, and from four to eight quarts of lime; fill with ashes, moistened, and tamp down well—tamp the firmest in the centre. It is difficult to obtain the full strength of ashes in a barrel without removing them after a day's leaching, and mixing them up and replacing. The top should be first thrown off, and new ashes added to make up the proper quantity. Use boiling water for second leaching.

Take about four gallons of lye, and boil up thoroughly with this twelve pounds of clear grease, then add the lye as it is obtained, keeping a slow fire, and stirring often, until you have a barrel of soap. After boiling the grease and four gallons of lye together, it may be put in a barrel and the lye added there, which will form a good soap if frequently stirred, but the heating process is the best when weather and time will permit the work to be done.

GRAPE WINE.—A correspondent of the *German-town Telegraph* gives the following recipe for making five gallons of wine:

Express the juice from twenty pounds grapes and rinse the pulp and skins in as much water as will cover them, mash them and strain through a coarse cloth, add this to the juice and put in two pounds of brown sugar to each gallon; when the sugar is dissolved, pour the whole into a keg having the bung open, and let it stand where the temperature will be about 70 degrees until fermentation ceases; then bung tight, and let rest for a month to settle when it should be drawn off quietly, the keg well washed, and the wine returned to it, adding one pound good raisins—and if the wine does not seem sweet enough, add two pounds sugar to the whole. The necessity of doing this depends upon the kind and quality of the grapes.

The wine should remain until the keg is wanted the next season, when it may be bottled for use.